



UNITED STATES AIR FORCE RESEARCH LABORATORY

Logistics Analysis to Improve Deployability (LOG-AID): Concept Development

James A. Leftwich

Synergy, Inc.
3100 Presidential Drive, Suite 300
Fairborn, OH 45324-6224

Adrian M. Crowley
Dwight F. Pavak
Joseph D. Martin

Air Force Research Laboratory

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Human Effectiveness Directorate
Deployment and Sustainment Division
Logistics Readiness Branch
2698 G Street
Wright-Patterson AFB OH 45433-7604

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FOR THE COMMANDER



MARK M. HOFFMAN
Deputy Chief
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The Logistics Analysis to Improve Deployability (LOG-AID) program is sponsored by the Air Force Research Laboratory to enable the Air Force to monitor change in information technology. The object of the program is to improve the Air Force deployment capability through a process-driven approach that allows for technologies to be applied smoothly and institutionalizes continued process improvement and technology application. The LOG-AID program analyzed the current wing-level deployment process and developed a set of Deployment Process Improvements (DPIs) directed at increasing the operational effectiveness of the Air Force's (AF) wing-level deployment process. The DPIs provided the foundation for developing the requirements for a streamlined process providing the capabilities to reduce the deployment footprint, reduce deployment response time, and improve the use of deployment resources. The scope of the wing-level deployment process considered within the LOG-AID program starts with the receipt of the deployment tasking and finishes with the deploying resources loaded on the transporting conveyance. This scope includes all information processing and activities of the Battle Staff, load planners, Deployment Control Center (DCC), Installation Deployment Officer (IDO), Unit Deployment Manager (UDM), in-check personnel, on-base transportation, Cargo Deployment Function (CDF), Personnel Deployment Function (PDF), marshaling team, load master, and load team.

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PREFACE

The research documented in this technical report for the Logistics Analysis to Improve Deployability (LOG-AID) program was sponsored by the Air Force Research Laboratory, Human Effectiveness Directorate, Logistics Readiness Branch (AFRL/HESR), Wright-Patterson AFB, OH. The work was performed under contract F41624-96-C-5000 by Synergy, Inc. Captain Adrian M. Crowley was the Air Force program manager for the effort. Other laboratory personnel who made major contributions during the program were Captains Dwight F. Pavek and Joseph D. Martin.

EXECUTIVE SUMMARY

The eve of the 21st century marks more than a chronological milestone. Changes in technology and fundamental restructuring and downsizing of the military call for fresh thinking about how the military accomplishes its goals and objectives. The challenge is to adapt and use organizations, processes, and rapidly changing technologies to achieve greater effectiveness and quality at reduced cost. Organizations that master change will continue to improve their operational effectiveness, while those failing to reengineer their practices and policies will gradually lose effectiveness.

The Logistics Analysis to Improve Deployability (LOG-AID) program is sponsored by AFRL to enable the Air Force to monitor change in information technology. The objective of the program is to improve the Air Force deployment capability through a process-driven approach that allows for technologies to be applied smoothly and institutionalizes continued process improvement and technology application.

The development of the As-Is models representing the current deployment process was based on the integration and analysis of information collected from regulations and manuals, from users at numerous bases located throughout the CONUS, USAFE, and PACAF, as well as first-hand observation of the deployment process operation at those bases. In addition to describing the current process, users identified process problems and improvement ideas for use in the development of the To-Be process model. The As-Is models were then presented back to the users for their review and verification ensured a solid foundation from which to build towards the To-Be deployment process concept of operation.

Analysis of the As-Is process resulted in eighteen Deployment Process Improvements (DPIs) grouped into the categories of Information Systems, Process, Policies, Training, and Personnel Attitude. Criteria obtained from the users and ranked by the users established the basis for determining the relative importance of these DPIs. Changing the As-Is wing-level deployment process in accordance with these DPIs resulted in the To-Be deployment concept of operation. The accuracy, completeness, and acceptance of these DPIs and the To-Be process description were verified through a series of validation trips involving their presentation to deployment

experts for review, comments, and suggestions. Figure 1 lists the DPIs, the ranking criteria, and the ranking of the DPIs based on the criteria.

Deployment Process DPIs	DPI Rank
INFORMATION SYSTEMS <ul style="list-style-type: none"> Implement highly integrated information systems across levels of command, across and within deployment and reception sites to include a task receipt-to-airlift-manifest information system. 	1
PROCESS <ul style="list-style-type: none"> Optimize production and minimize inspection activities Adjust responsibilities and improve integration of units, Manpower, and Personnel Capitalize on cargo and personnel processing similarities Collect process status and effectiveness information using passive means Improve in-transit visibility Control tasking receipts into the base Reduce the number of coverage days included for initial deployment Better define the objective and criteria for UTC tailoring 	2 3 11 12 13 15 17 18
TRAINING <ul style="list-style-type: none"> Apply real-world training characteristics to exercises Maximize training benefits Include total process training Incorporate training and efficiency evaluation capability into LOG-AID system 	8 4 6 5
POLICIES <ul style="list-style-type: none"> Provide the UDM capability to produce more deployment-ready personnel and cargo Develop deployment guides for each deployment position Refine the AFIs as necessary to best guide the deployment process 	10 9 7
PERSONNEL ATTITUDE <ul style="list-style-type: none"> Develop a process to encourage augmentees to participate in deployment Develop a process to encourage augmentees to be committed to real world contingencies to the same level as exercises 	14 16

User Defined Deployment Performance Criteria

- Deployment Footprint
- Resource Utilization
- Information Fusion
- Deployment Execution Time
- Flexibility
- Quality of Deploying Resources
- Deployment Cost

Figure 1. DPI Ranking Using User-Defined Deployment Performance Criteria

The streamlined To-Be deployment process is comprised of a set of well-defined, integrated, and non-duplicating activities. Supporting the activities are a series of process structures which control and integrate these activities among organizations so as to minimize duplication of data and limit number of information systems.

While the basic deployment process requirements will remain relatively constant into the future, the technologies available to implement the process will change dramatically. With the year 2010 selected as the first implementation target, the focus of the Year 2010 Concept of Operation (CONOP) current or anticipated technologies. As time progresses beyond 2010, evolving technologies will replace the Year 2010 technologies as appropriate, further enhancing the effectiveness of the deployment process. These enhancements in deployment capability will

minimize the deployment footprint, reduce the reaction time required to satisfy a deployment tasking, and reduce the number and skill level of personnel performing the deployment.

The intended goal is to have an AF wide process that will allow for variations in technologies for implementation of the process at the wing level. Incremental implementation of the To-Be CONOP is based on the user-defined DPI ranking and will produce near-term and step-wise benefits while reducing implementation and operational risks. This incremental implementation with variations in technologies also allows for the deployment bases with varying levels of existing deployment technologies to upgrade their technologies based on their need rather than requiring the implementation of a large single technology package capability. Thus, organizations will be able to control their change achieving greater effectiveness and quality at reduced cost through the reengineering of their process and policies.

Identifying the DPIs and laying the foundation for the development of the To-Be CONOP required the application of a methodology that effectively integrated the users and the LOG-AID analysis team. As presented in this document, the methodology foundation started with a baseline understanding of the wing-level deployment process. The next step was direct interaction with 132 personnel at 16 Air Force bases, as well as operational observations of the wing level deployment process. This data was documented through a set of As-Is functional models, data models, process flows, and simulation models. In addition, criteria ranking data was collected from each individual to help determine the order of importance of the DPIs.

Ranking the DPIs by the user-defined criteria prioritized the DPIs with respect to their importance and benefit to the users. To verify the DPIs we presented to over 300 users at 17 bases worldwide. The accepted DPIs were then used as the basis for changing the As-Is models so as to produce the corresponding To-Be models. These models were the developing foundation for the LOG-AID CONOP focused on the year 2010. In addition, the To-Be models provided the requirements and specifications for identifying and selecting technologies to implement the future process or to identify the research requirements for designing and developing new technologies.

In parallel with the primary wing level process analysis was the development of the Agile Combat Support Process and Technology Center (ACSPTC). Set up as a testing laboratory

concept, it provided the opportunity to implement and work with many existing wing level deployment tools, to implement and work with tool concepts developed within the LOG-AID program, and to gradually build a limited version of the To-Be wing-level deployment process.

Everything was now set to effectively and efficiently develop and implement a test plan to demonstrate the operational benefits provided by the To-Be CONOP built upon the DPIs. The ranked DPIs were transformed into a set of testing initiatives. Prior to their site implementation, the To-Be simulation and the ACSPTC provided capabilities necessary to predict the potential operational benefits prior to the site implementation.

Finally, the results of the LOG-AID program produced two critical capabilities for ensuring continued benefits. First, the methodology and models developed as the program foundation form the basis for a continued process improvement capability necessary to ensure the continued optimization of the wing-level deployment process. Second, an approach was developed to encourage and facilitate the transition of the To-Be CONOP and the implementing technologies to the supporting bases. Through this implementation transition is realized in a more uniform wing level deployment process optimizing the bases deployment capabilities while minimizing system development and training requirements. Thus, the Air Force will have made significant steps towards meeting future operational requirements as stated in Air Force Vision 2010.

As the Air Force evolves to an Air Expeditionary Force (AEF), the need to reduce force deployment time and reduce the deployment footprint are critical. While not the total solution, the results of the LOG-AID analysis make tremendous strides in achieving the AEF capability. When implemented, LOG-AID alone will result in a 14 hour (60%) reduction in the force deployment timeline. More importantly, LOG-AID sets the stage for continuous process analysis and technology application that will facilitate structured improvements well into the next century.

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1. INTRODUCTION

Conducted by the Synergy Team under contract to the Air Force Research Laboratory Logistics Readiness Branch (AFRL/HESR), the Logistics Analysis to Improve Deployability (LOG-AID) program analyzed the current wing-level deployment process and developed a set of Deployment Process Improvements (DPIs) directed at increasing the operational effectiveness of the Air Force's (AF) wing-level deployment process. The DPIs provided the foundation for developing the requirements for a streamlined process providing the capabilities to reduce the deployment footprint, reduce deployment response time, and improve the use of deployment resources.

The scope of the wing-level deployment process considered within the LOG-AID program starts with the receipt of the deployment tasking and finishes with the deploying resources loaded on the transporting conveyance. This scope includes all information processing and activities of the Battle Staff, load planners, Deployment Control Center (DCC), Installation Deployment Officer (IDO), Unit Deployment Manager (UDM), in-check personnel, on-base transportation, Cargo Deployment Function (CDF), Personnel Deployment Function (PDF), marshaling team, load master, and load team.

The LOG-AID program addressed a set of integrated objectives identified as follows:

- Identify and document shortfalls in the current deployment planning and execution process and supporting systems;
- Identify innovative process improvements and technologies that significantly enhance the stakeholder's ability to satisfy the deployment requirements;
- Define and document a Concept of Operation (CONOP) for best-case wing deployment planning and execution at base;
- Implement a demonstration at a facility in which the process improvement concepts and information systems integration can be tested and demonstrated.

Successful performance of the LOG-AID program required the application of a stakeholder-focused methodology based on the development and analysis of As-Is and To-Be models representing the deployment process. The information used to develop the As-Is models came from reviews of literature and previous programs, and from site visits. During the visits, the LOG-AID team observed deployment operations and interviewed personnel, or stakeholders, directly involved with deployment performance, being deployed, and evaluating the deployment.

Organization of the collected information into a set of As-Is models formed the primary analysis tools for identifying processing strengths and weaknesses. DPIs developed to build upon the strengths and address the weaknesses produced the stepping stones to the streamlined, improved process as documented in a set of To-Be models, including potential technologies to implement the improved process. Extracting the processing requirements from the To-Be models produced the LOG-AID CONOP.

The LOG-AID Agile Combat Support Process and Technology Center (ACSPTC) provides a facility to integrate information systems and technologies making up current deployment process. As the process improvements and technologies develop, the ACSPTC provides the capability to verify the improvements, to test new technologies, and to perform trade-off analysis. This report presents this methodology, with the resulting models presented in the Appendices.

1.1 Background

Significant changes in the world situations are forcing the military to transition its operational capabilities to meet a varying set of mission requirements. Specifically, military support requirements are changing from one of supporting major, long-term conflicts in a relatively predictable set of global sites to supporting shorter-term conflicts and humanitarian missions at almost any point in the world. These changes in global mission requirements necessitates a responsive, sustainable, and survivable support force prepared to promote and defend national interest anytime and anyplace.

Thus, the traditional practice of using massive quantities of troops and large stockpiles of supplies available in-theater to engage hostile forces is quickly becoming obsolete. Additionally, extensive build-up time, and lengthy supply and repair pipelines to sustain forces are unrealistic. Because of these changes in world situations, the Air Force logistics of the future faces its greatest challenge of improving itself so as to provide a precise, agile response capability.

To address these changing conditions, the United States Air Force (USAF) is embarking on a new set of initiatives under the banner Global Engagement as documented in Joint Vision 2010. These initiatives are the core competencies of Air and Space Superiority, Global Attack, Rapid Global Mobility, Precision Engagement, Information Superiority, and Agile Combat Support (ACS). The core competencies support the Air Expeditionary Force (AEF) concept by providing the necessary military support for the changing global military requirements. Satisfying these operational goals requires increased flexibility to address changing mission requirements, increased responsiveness, reduced deployment footprint, and reduced personnel and equipment to support the deployment operation.

These operational changes directly impact the requirements placed on the wing level deploying units. Specifically, the units no longer have the luxury of leaning forward in their deployment preparation. Rather, they face a future requiring them to react based on unanticipated taskings, to accomplish the deployment in a limited time frame, and to transition in a seamless manner between their day-to-day training operations and their deploying operations.

As the Air Force moves into the future, units and bases must deploy as an integrated set to provide those resources needed to support the designated mission. This integration requires a combination of communications and coordination supported by a deployment process having significant commonality across units and bases. The communications and coordination allows for the tailoring of deploying resources, thus footprint reduction, based on the sharing of resources among units as well as the increased use of resources located at the reception site. Process commonality minimizes the need to adjust the process due to the deployment size or type. Thus allowing the deployment support

personnel to concentrate on performing the deployment activities rather than determining what the activities prior to performing them.

Operating in this seamless environment requires the wing-level deployment process to be performed more effectively through the application of a streamlined and properly implemented deployment process. To be viewed as streamlined, each action performed in the process produces a unique product that is needed in the performance of subsequent activities. Effective implementation requires an effective allocation of activities between personnel, and the selection of technologies that satisfy both functional and performance capabilities of the process.

This distinction between the process definition and the process implementation allows for their separate evolution and continued process improvement. A streamlined deployment process should be relatively stable over long periods of time. The ever-changing capabilities in technologies, however, provide the potential for improving process efficiency by changing process implementation using those technology. This separation between process definition and process implementation also allows for the application of the process definition at all bases regardless of their level of deployment commitment while allowing the technology implementation to vary among bases in accordance with their deployment commitment.

Having established a streamlined processing definition and implementation concepts, the foundation exists to carry the Air Force not only into the year 2010 as designed for the LOG-AID program, but well beyond.

2. METHODOLOGY

The LOG-AID program used Systems Research and Applications Corporation (SRA's) Enterprise Life Integration Technology Engineering (ELITE) methodology as the comprehensive system life-cycle analysis framework to bring all Business Process Reengineering (BPR) related activities together into an integrated approach. As shown in Figure 2, ELITE addresses the full range of strategic planning activities, BPR, information systems development, deployment, and operations and maintenance (O&M).

ELITE ties all activities together with artifacts (requirements, designs, code, and documents) and surrounds all activities with a comprehensive management infrastructure. ELITE allows for entry and exit at points appropriate to the scope of the given program effort and accommodates varied methods, techniques, and tools.

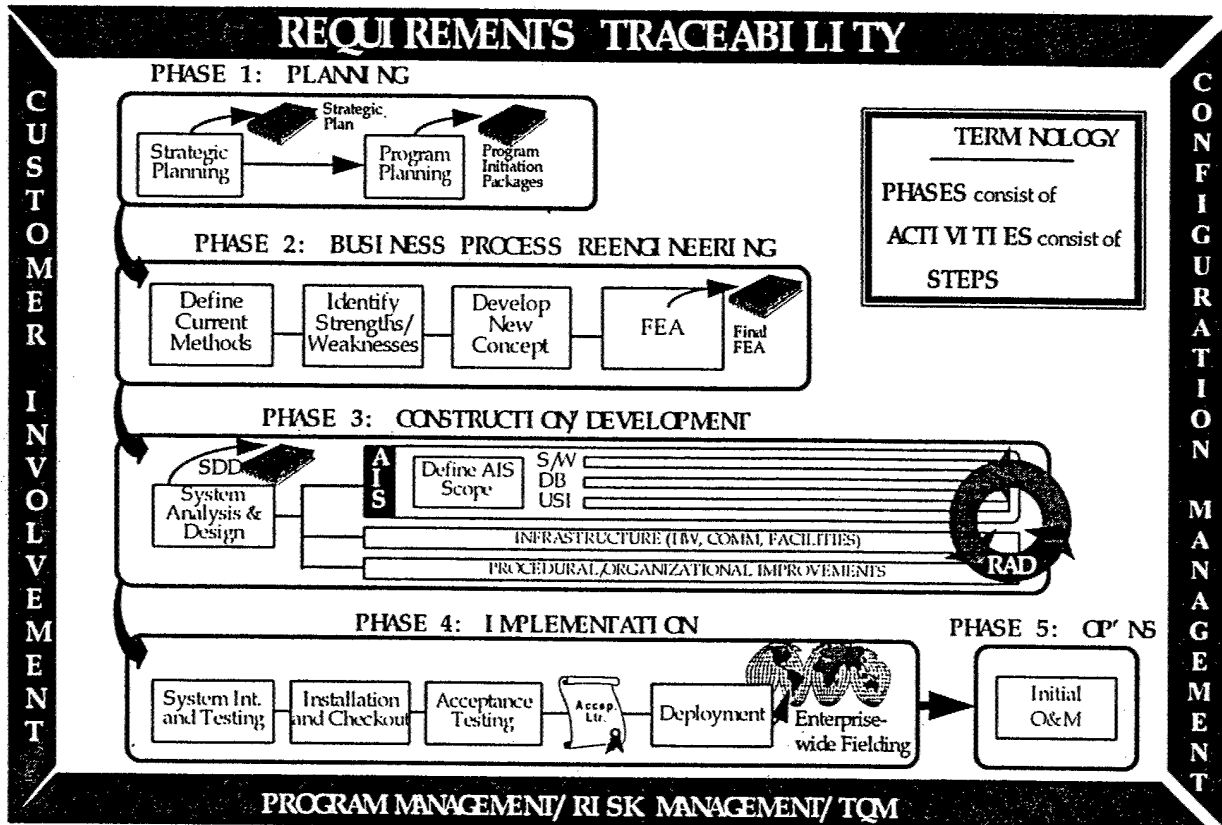


Figure 2. ELITE Methodology

Phase I - ELITE: Planning, the enterprise looks outward to understand the environment in which it operates, looks inward to candidly assess its strengths and weaknesses, sets a course for the future, and plans an approach to get there. While planning is primarily an internal activity, this phase is vital to the success of any future initiative.

Phase II - BPR: identifies better ways of conducting business, avoiding the perpetuation of inadequate or inappropriate business processes. Accomplishing Phase II requires the analysis of current business processes, development and evaluation of alternative means

of meeting the organization's future objectives, and the generation of plans to realize the selected alternative through implementation projects.

Phase III - Construction/Development: converts the plans and models developed during BPR into a real system, along with the detailing of organizational and related infrastructure changes required to implement the improved business processes. ELITE's unique approach to this phase defines three interdependent development paths: selection and integration of the system infrastructure (hardware, system software, and commercial or governmental off-the-shelf applications); creation of new, reengineered, or converted automated information systems software; and implementation of changes to the customer's organizational structures and internal operational procedures. Each of these paths overlaps and complements the others to address all development factors in a comprehensive manner. Within each path, activities defined for requirements analysis, design, and development culminate in the delivery of a system ready for acceptance.

Phase IV - Implementation: the infrastructure, automated information system, and new organizational structures and procedures are installed, acceptance tested, and deployed. System fielding is coordinated with user training and implementation of organization and procedural changes. Our key to continuous process improvement is the application of the full ELITE methodology for all required modifications and upgrades.

The integrated phases of ELITE allow for the traceability of requirements, configuration management of all information collected and products generated, facilitation of customer involvement, and overall management control of the program.

The Air Force accomplished most, if not all, of the planning activities in ELITE Phase I. This planning involved the definition and scoping of the LOG-AID program and the generation of the statement of work leading up to analysis work performed within Phase 2. LOG-AID, therefore, concentrates primarily on completing Phase II, the BPR portion of the ELITE methodology. After development of the LOG-AID CONOP, it provides the foundation for implementation test plan development designated in Phase 3. The results of the implementation tests provide the guidance necessary to define and implement the optimized deployment process at various bases.

Supporting all aspects of the LOG-AID was the ACSPTC. Starting with the software programs currently used to support the deployment process, this computer-based facility provided the capability to understand the current programs and gain experience with the performance situations being faced during wing-level deployments. As the program progressed, enhancements to the ACSPTC included new support program and program integration concepts providing the capability to test software tool and system integration concepts.

3. ANALYSIS

3.1 Define Current Process

A description of the current wing-level deployment process formed the foundation for developing of the 2010 wing-level deployment process. The current process description established a common understanding of the deployment process, provided a means by which to compare deployment processes across various sites, provided a means of understanding the historical development of the deployment process, and provided a benchmark against which to measure the effectiveness of the proposed improvement recommendations.

The application of a user-focused methodology produced a description of the current deployment process by identifying and collecting process data, and documenting the As-Is process description via the development of the As-Is activity, data, process flow, and simulation models. The following subsections present details for the definition of the current process.

3.1.1 Methods Description

Defining the current methods started with specifying the scope of the problem and identifying the criteria and metrics for measuring the improvement recommendation effectiveness. With the scope and metrics identified, information obtained from functional experts and documentation reviews formed the basis for the development of the initial or strawman functional model.

The initial functional model provided the process understanding necessary to identify the data collection requirements in terms of the types of information needed to accurately describe the deployment process. The information requirements guided the selection of information sources and the development of a data collection kit. The sources included the roles or personnel skills that could provide the needed information and an analysis of the Air Force sites throughout the world identified the best set of sites at which to access the identified sources. The bases and skills (stakeholders) visited and interviewed are listed in Figure 4, along with the number of interviews associated with the five major activities associated with the wing/base-level deployment process.

Deployment process effectiveness dependent on perspective		
<u>SITES</u>	<u>STAKEHOLDERS</u>	<u>INTERVIEWS</u>
• Ohio ANG (Springfield)	• Wing Commander	• Planning (65)
• Indiana ANG (Ft. Wayne)	• IDO/DCC	• Unit Preparation (27)
• Wright Patterson AFB	• UDM	• Transportation (8)
• Langley AFB	• Load Planner	• Cargo Processing (23)
• Eglin AFB	• Manpower &	• Personnel Processing (9)
• Tyndall AFB	Personnel	TOTAL (132)
• Holloman AFB	• PDF	
• Mt. Home AFB	• CDF/Incheck	
• McGuire AFB	• On-Base Transportation	
• Ramstein AFB	• READY	
• Spangdahlem AFB	• Marshaler/RAMPCO	
• Shaw AFB	• Load Master/TRANSCOM	
• Youngstown ARS	• Reception Site	
• Seymour Johnson AFB		
• Randolph AFB		
• Maxwell AFB/Gunter Annex		

Figure 4. LOG-AID Data Collection Sources

Following each data collection trip, analysis of the collected information supported the gradual refinement and expansion of the strawman model into the As-Is functional model as well as the refinement and enhancement of the data and simulation models. The increased process understanding provided by the improved As-Is models directly affected the information collection requirements for subsequent data collection trips. This data collection and model development cycle continued until the completeness of the As-Is models supported the requirements of the process analysis.

To further facilitate the development of the As-Is functional model, information from previous and on-going programs was reviewed and brought forward into the As-Is functional model. The information gained from the previous and on-going programs was documented in the LOG-AID Background Paper. The background paper

provides an effective reference for future related programs first by identifying related programs, providing insight into focus and results of the programs, and describing how the LOG-AID program used those programs. Throughout the development, model reviews verified the model accuracy and completeness.

Interviews with subject matter experts on the LOG-AID team and document reviews provided the starting point for the strawman model development. The strawman development ensured a common understanding of the boundaries and goals of the LOG-AID program along with a top-level understanding of the wing-level deployment process within the defined boundary.

The literature search expanded and verified information from the LOG-AID team's SME's by bringing forward information, results, and ideas from previous and ongoing programs. Documentation of the literature review in the Background Paper provides an effective reference for future programs focusing on the wing-level deployment process.

Categorizing the related programs in terms of the scope and perspective provided the basis for mapping the programs to the LOG-AID As-Is models and helped identify the appropriate program to be brought forward into the LOG-AID program. This program categorization provides the following three primary insights:

- The relationship between the various related programs and the LOG-AID program;
- A picture of the total analysis coverage directed at the deployment process; and
- The deployment process segments not yet addressed by analysis.

To provide a common understanding for comparison, the following definitions of perspectives were applied.

Functional Analysis Perspective: Focuses on the functions or activities performed within a process and identifies the informational relationships that must exist to optimize the performance and coordination of the processing functions. This

analysis identifies and reduces duplicate and non-value activities, resulting in a streamlined process that maximizes the use of implementation resources. This analysis generates the functional and informational requirements for the process.

Information Perspective: Focuses on the information requirements identified by the functional perspective analysis to support the current process with the objective to reduce the duplication of information elements and to organize the logical structure of the information to maximize the operational efficiency. This analysis specifically helped to identify the commonality of information existing between personnel and equipment which leads to the potential for developing a unified information system for both.

Process Flow Perspective: Focuses on flow efficiency of the process with the objective to reduce process flows, and to develop requirements and specifications to reduce bottlenecks. The process flow perspective, which often times includes simulation, is overlaid onto the functional and information perspectives to represent the performance characteristics of the process. These performance characteristics are documented as the performance requirements and specifications needed to identify and select technologies to support the process and the design of physical data structures needed to effectively support the process performance.

Information System Perspective: Focuses on the development of individual information systems and/or the integration of individual information systems with the objective of optimizing the user interaction with the supporting information system. The functional requirements developed thus far lay the groundwork for the information system perspective which establishes the physical design of the data structures that will most efficiently satisfy the goals of the process performance.

Organizational Structure Perspective: Focuses on the assigned organizational responsibilities for accomplishing the process with the objective of establishing

a chain of command that controls as well as implements the process. The organizational perspective assigns process and communication responsibilities to the appropriate organizations.

Technology Perspective: Focuses on the application of technology to perform the process based on the process functional requirements and performance specifications. Identifying the necessary technologies will begin by searching for existing technologies to satisfy the performance specifications. If no technologies exist to satisfy the specifications, new research efforts may be initiated to develop the needed technologies.

For a process improvement effort such as LOG-AID, applying the perspectives in a logical order is important. The functional or analysis perspective provides the foundation for the entire LOG-AID program, followed closely by the information and process flow perspectives. The information system perspective is then applied and followed by the organizational structure and finally the technology perspectives. This ordering of the perspectives is important because the goal is to establish the requirements and specifications for the technologies so as to support the accurate selection or development of the necessary technology. Stated in another way, the implementation of the process must be process requirements driven rather than technology driven.

The site data collection process consisted of on-site interviews and observations of the deployment process. In addition to collecting process description information, user ideas were also collected regarding what the stakeholders believed was wrong with the process and how the process could be improved.

To optimize the aforementioned data collection effort, a well-defined set of data requirements based on the initial activity model was established. These requirements included activity-oriented data, interface-oriented data, and operations-oriented data. The activity-oriented data included activity definition information, inputs and outputs for the activities, and regulations and guidelines (controls) that defined the process of implementing the activities. Interface-oriented information included manual and automated interfaces among the personnel and organizations within the wing, and

between the wing and supporting information systems. Operations-oriented data included performance definitions, process sequencing, and resource requirements data along. Finally, the problems and improvement related ideas from functional experts and users addressed a wide range of issues.

This included the identification of actual problems, symptoms of problems, personal dislikes about the process, duplication and non-productive aspects within the process, and technology application. Actual problems within the deployment process are steps which cause inefficiencies in the process and if corrected result in improved process effectiveness. Symptoms of problems appear at first glance to be actual problems, but if addressed directly with a correction do not improve process effectiveness. Thus the symptom of a problem is not the actual problem, rather it indicates that a problem somewhere in the process is producing the symptom. Personal dislikes about the process do not necessarily mean the process information system is inefficient, it simply means that a person does not like the manner in which the process is implemented. Thus, corrections to this type of identified problem will not result in operational efficiency, but will improve the willingness of individuals to perform the process. Duplication and non-productive aspects within the process identify definite inefficiencies in the process. Duplicative process activities mean the same activities are performed more than once, when only one performance is needed. Non-productive activities mean that activities are producing products that are not used by subsequent activities or provided to the process customer. Technology application relates the effectiveness of the technologies used to implement the process to the true requirements and goals of the process. At times process implementation is technology rather than process driven. Technology driven implementation occurs when a technology is selected and then force fitted into the process. Process driven implementation occurs when the process's functional and performance requirements are identified and used to select or develop the most applicable technology.

The on-site data collection was accomplished as a combination of one-on-one interviews and observation. Using a pre-established set of information collection objectives, a maximum of one hour interviews were held with each selected individual. The pre-

established set of information collection objectives focused on verifying processing issues not yet totally understood and portions of the process for which information had not yet been collected. The interviews started with the interviewer bringing the interviewee up to speed on the goals of the data collection effort by explaining the LOG-AID program and walking through a top-level discussion of the wing-level deployment process as currently understood by the interviewer. This introductory discussion provided the interviewee with an appreciation for the interviewer's level of deployment understanding, a better understanding for what was expected from them, and a general validation of the information previously collected and included in the current As-Is models.

During each interview, notes were taken, an audiotape was made if approved by the interviewee, and related documents and forms collected. At times, these interviews included demonstrations of tools and materials used by the interviewee in the performance of their deployment operation.

While observations of the deployment process were a lesser portion of the data collection effort, it provided insight to the deployment process environment, thus, increasing the understanding and appreciation of the information collected during interviews.

The identification of information sources (i.e., interviewee's) started with an analysis of the strawman model by identifying which AFSCs (stakeholders) perform which part of the deployment process. Using these AFSCs, an analysis of Air Forces bases identified which bases owned those AFSCs and performed a reasonable quantity of deployments each year. Having identified the most appropriate bases for data collection, a point of contact established at each base provided the coordination necessary to schedule an effective data collection visit.

3.1.2 Results

The methodology to define the current wing-level deployment process proved both effective and efficient. Data collection trip preparation allowed the interactions with the stakeholders to be direct and focused, resulting in maximum data collection using minimal time spent with each information source. Being prepared in this manner

increased cooperation and acceptance by the stakeholders because the interviewers could discuss the deployment process effectively using the terminology of the stakeholders, could discuss the problems and issues related to the process. Thus, the stakeholders were able to leave the interview feeling they provided valuable input to the LOG-AID program.

3.2 Process Strengths, Weaknesses, and DPIs

The As-Is models document the processes description based on information collected from stakeholders and analysis of these models identified the strengths and weaknesses inherent in the process. Identifying ways of building upon the strengths and correcting process weaknesses produced a set of DPIs. These DPIs established the improvement requirements that formed the foundation for developing the wing-level deployment To-Be CONOP. Ranking those DPIs with respect to the deployment criteria identified by the stakeholders provides guidance needed to establish a DPI implementation prioritization that optimizes the benefits to the stakeholders.

3.2.1 Methodology Description

Figure 5 presents an overview of the stakeholder-focused methodology used to develop and rank the DPIs. The methodology presented in this section generates the Theoretical Implementation Value for the DPIs. As the implementation of the DPIs occurs during future field testing, the benefits actually realized will produce the DPI Implementation Value.

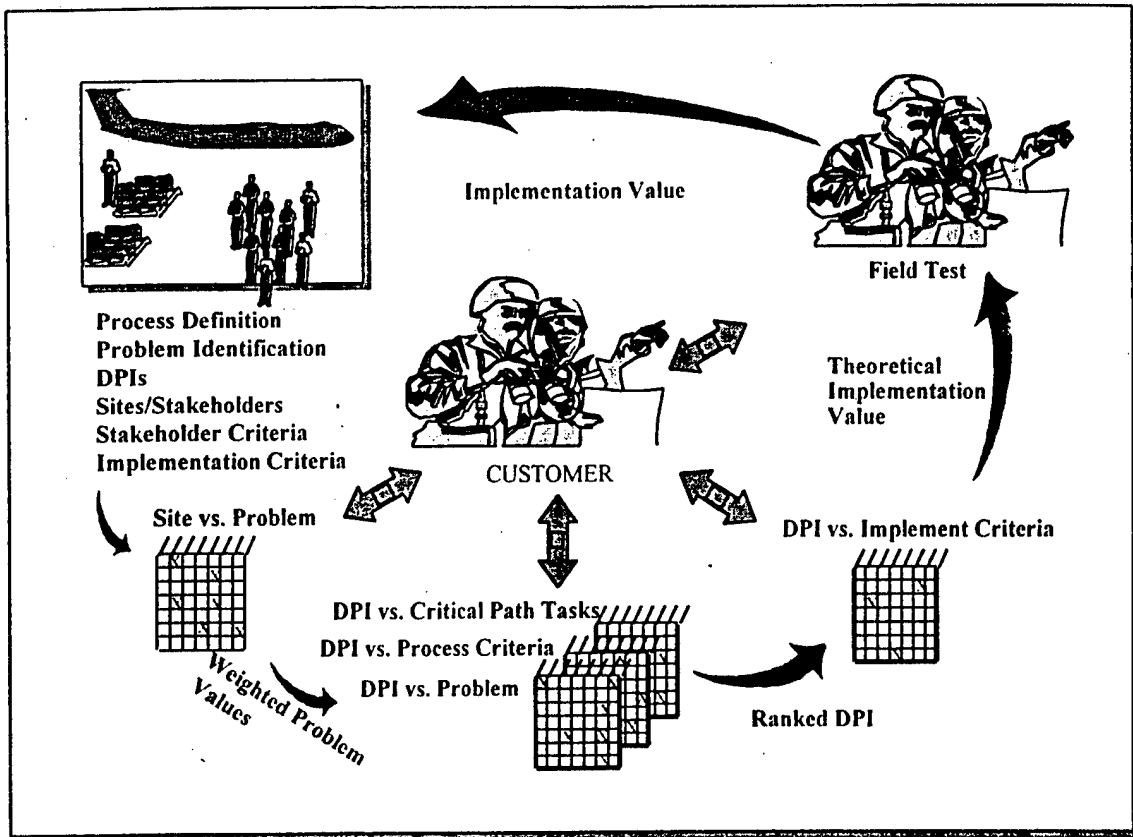


Figure 5. DPI Ranking Process

The DPI ranking process begins with the information collected from stakeholders, functional experts, and previous and on-going programs. Specifically, the information used include the As-Is models, the process problems and improvement ideas identified by the stakeholders. Additionally the information includes the list of sites and stakeholders accessed during data collection, the process criteria used by the stakeholders to judge the effectiveness of a deployment. The information also included the criteria considered when implementing changes into the deployment process. Analysis of the As-Is models produced two major products. These products are the process strengths and weaknesses and the process's critical path through the lowest level model activities.

DPIs must address the deployment processing problems identified by the stakeholders. Thus mapping the sites to the problems (Site vs. Problem), with the sites rated by the

level of their deployment effort, places a weighted value on each processing problem identified by the stakeholders.

Mapping the DPIs to the weighted processing problems (DPI vs. Problem) identified which DPIs totally or partially corrected each of the problems. Mapping the DPIs to the process critical path identified which DPIs provided the most impact to the deployment process. Mapping the DPIs to the process criteria identified which DPIs impacted those deployment performance factors considered important by the stakeholders. The Ranked DPI value then came from the integration of values from these DPI vs. Problem, DPI vs. Process Criteria, and DPI vs. Critical Path analysis, with each measurement accounting for one-third (1/3) of the final DPI ranking.

The Theoretical Implementation Value resulted by mapping the DPIs to the implementation criteria specified by the stakeholders and the LOG-AID team. This value represents acceptance to implementation of each DPI. The following subparagraphs present additional details for the individual steps within the DPI ranking process:

Weighted Problem Values	Paragraph 3.2.4.1
DPI vs. Problem	Paragraph 3.2.4.2
DPI vs. Critical Path Task	Paragraph 3.2.4.3
DPI vs. Process Criteria	Paragraph 3.2.4.4
Ranked DPI	Paragraph 3.2.4.5
DPI vs. Implementation Criteria	Paragraph 3.2.5
Field Test	Paragraph 5.1

3.2.2 Identifying Process Strengths and Weaknesses

Process strengths and weaknesses were identified from a number of different sources. These actions, as described below, include various analyses applied to the As-Is models.

3.2.2.1 Activity Model Analysis

Pattern Analysis: Within activity models, the key analysis approach is arrow pattern analysis. Arrow pattern analysis identifies many process conditions to include non-value added activities, duplication processing among activities, inefficient partitioning of functionality to organizations, ineffective interfacing of activities, and overlay analysis. Using the same analysis approach identified processing strengths.

Non-value added activities are identified as having outputs not significantly changed from its inputs. For example, within the base level deployment process, the CDF activity basically inputs increments from the units, reviews them for correctness, makes adjustments if necessary, and sends the increments for further processing. Thus, the intent of this activity is not to change content or structure of the increment, only to correct. Therefore, if the unit generation of the increment was done correctly, the CDF activity could be eliminated.

Duplication processing among activities is indicated by the inputting of the same information to multiple activities. This potential means that within those activities the same or similar processing is occurring in order to use the information for the intended purpose within the activity. More detailed comparison analysis among those activities determines if the duplicate processing actually exists. If the duplication does exist, that processing is usually separated into a separate function which then feeds the original activities with the information actually required for their processing.

Inefficient partitioning of functionality to organizations becomes apparent through a combination of the assignment of functionality to organizations as indicated by the mechanisms and the arrow patterns among those activities assigned to various organizations. Activities assigned to one organization may have more complex arrow patterns among them, but activities assigned to different organizations should be connected with less complex arrow patterns. Less complex arrow patterns between organizations indicate the organizations can work effectively by themselves with minimal interactions with other organizations. More complex arrow patterns among activities assigned to the same organization is potential alright since the intra-organizational groups can work closer together and with more communications. However, a complex arrow pattern among activities assigned to the same organization would indicate the group structure within the organization may not be optimized.

Ineffective interfacing of activities comes apparent through the excessive backward looping of arrows among activities. The looping indicates the functionality being performed within those activities should be reallocated among the activities. The goal

is to present a forward flowing process represented by a limited set of arrow relationships among the activities.

Overlay Analysis: During the data collection effort, problems and improvements ideas were received from the stakeholders. While these ideas provided insight into how the stakeholders viewed their process, their ideas could not be taken as final ideas. Rather, their ideas were analyzed by the LOG-AID team with respect to the overall process rather than from just their operational perspective by overlaying their processing ideas and problems onto the As-Is activity mode. This overlay analysis helped determine whether the identified problem is truly a problem or a symptom of a problem, and whether the improvement idea addresses a problem and will not produce a negative impact on another part of the process. Finally, the overlay analysis provided the capability to identify and understand any secondary problems caused by an identified problem. Secondary problems result when a problem in one part of the process triggers additional problems in subsequent parts of the process. For example, the incorrect preparation of an increment by the unit causes delays in the processing of that increment through the CDF.

3.2.2.2 Data Model Analysis

Analysis of the As-Is data model provided insights into both the types of data contained within the deployment process and the manner in which that data were organized. This understanding provided the foundation for correlating data elements across the process. For example, this correlation help to identify that data elements used for cargo were very similar in intent as those used for personnel, even though different element names existed for the two areas. From the completed data analysis was developed the concept for a more concise, unified deployment process data structure.

3.2.2.3 Process and Simulation Model

Analysis of the deployment process via the process and simulation models provided insight into the operational characteristics of the deployment process. Built from the As-Is activity model, the process model defined the operational sequencing of the process

flow in terms of branching, timing, performance by the personnel and systems, and cyclic processing. The format of the process model facilitated the collection of performance information from the SMEs, provided a structure for taking through and documenting the details of the deployment processing, and provided the information necessary for developing the simulation model.

The simulation model provided the capability to evaluate the operational performance of the wing level deployment process. Through this analysis, performance bottlenecks were identified along with deployment resource utilization, and the sensitivity of the various activities within the deployment process. Based on this performance information, an increased level of value could be placed on those DPIs which improved those sensitive or critical aspects of the process.

In developing the To-Be CONOP, the simulation model provided the capability to adjust the various performance characteristics of the process so as to define the "perfect process." Extracted from the "perfect process" were the performance requirements used to help identify and select potential implementation technologies, or to provide the requirements for developing new technologies for future implementation of the process.

In conjunction with the process analysis based on the models, research into the strengths, weaknesses, and improvement ideas from previous and ongoing projects helped to verify and confirm the ideas generated from the LOG-AID model analysis. The resulting strengths and weaknesses were grouped into categories of information systems, process, policies, training, and personnel attitude as summarized and present in Table 1.

CATEGORY	STRENGTHS	WEAKNESSES
Information Systems	<ul style="list-style-type: none"> • Relatively consistent information flow among sites <ul style="list-style-type: none"> ✓ "Home Grown" information systems being developed ✓ Personnel empowered to act on information ✓ Agreement that standard systems are not totally acceptable ✓ Commonality among "home grown" information systems ✓ Organizational boundaries being addressed through "home grown" system definition 	<ul style="list-style-type: none"> • Isolated information systems <ul style="list-style-type: none"> ✓ Manual information transfer increased time and decreases accuracy ✓ Personnel are more information handlers than information analysts and decision makers ✓ Required information is not always available to decision makers ✓ Minimal training, documentation, and support available ✓ Localized information systems being developed
Process	<ul style="list-style-type: none"> • Good operations and flight safety • Significant consistency across sites • Unit Type Code (UTC) concept is effective 	<ul style="list-style-type: none"> • Non-Uniform tasking delivery • Numerous load planning cycles due to inaccurate and incomplete information • Minimal coordination between deploying units and Transportation Command (TRANSCOM) • Deploying footprint not minimized to meet tailoring requirements of mission • QA check make up a significant portion of the deployment process
Training	<ul style="list-style-type: none"> • Heavy focus on augmentee training 	<ul style="list-style-type: none"> • Exercises are not representative of real-world deployments • Difficulty tracking and keeping qualified augmentees • Variations in interpretation
Policy	<ul style="list-style-type: none"> • Established Base Deployment Plans • Development of individual support manuals at one base • Flexibility through AFIs encouraged and accelerated effective standardization 	<ul style="list-style-type: none"> • Multiple views on UTC tailoring • Base deployment plan not closely followed • Significant time and effort to develop and maintain deployment plans
Personnel Attitude	<ul style="list-style-type: none"> • Deployment problems realized, but corrective vehicles not readily available • Experienced personnel take charge to ensure success 	<ul style="list-style-type: none"> • Most personnel are not over eager to be augmentees • Personnel do not want augmentee training to remain in their personnel folder

Table 1. Wing-level Deployment Process Strengths and Weaknesses

3.2.3 DPI Development

The identified deployment process strengths and weaknesses provided the starting point for developing initial improvement ideas that addressed the process weaknesses and built upon process strengths. Evaluation of the initial DPIs by using the As-Is models provided insight into the potential impact of those DPIs on the total deployment process. Through this analysis, the initial improvement ideas were expanded, and refined into a set of eighteen DPIs. Table 2 presents a summary list of the categorized DPIs. Appendix E presents a more detailed discussion the categorized strengths, weaknesses, and DPIs.

CATEGORIES	DPIs
Information Systems	Implement highly integrated information systems across levels of command, across and within deployment and reception sites to include a task receipt-to-airlift-manifest information system (i.e., Apply an information processing system that links and transfers information throughout the wing-level deployment process and provides decision suggestions to the deployment personnel.)
Process	<p>Optimize production and minimize inspection activities (i.e., Improve Cargo/Personnel preparation so that pre in-check, in-check, marshaling check, and most PDF stations can be reduced or removed.)</p> <p>Adjust responsibilities and improve integration of units, Manpower, and Personnel (i.e., Improve the information exchange to provide the units with up-to-date, accurate personnel information.)</p> <p>Capitalize on cargo and personnel processing similarities (i.e., Develop a single information system that documents both cargo and personnel information.)</p> <p>Collect process status and effectiveness information using passive means (i.e., Reduce the need for deployment personnel to manually report to the DCC and to collect and analyze processing information for continuous processing improvement.)</p> <p>Improve in-transit visibility (i.e., Provide the capability to know where deploying resources are at any point in time during the deployment and to the beginning of employment.)</p> <p>Control tasking receipts into the base (i.e., Have everyone work to the same set of mission requirements.)</p> <p>Reduce the number of coverage days included for initial deployment (i.e., Considering the goals of lean logistics, shorten the number of days for which the number of days before sustainment begins.)</p> <p>Better define the objective and criteria for UTC tailoring (i.e., Establish a common understanding among units that UTC tailoring should be done so as to best satisfy the mission requirements.)</p>
Training	<p>Apply real-world training characteristics to exercises (i.e., Train to both fragged and full UTC requirement.)</p> <p>Maximize training benefits (i.e., Tracking of UDM and deployment support personnel training as they transfer among bases.)</p> <p>Include total process training (i.e., Provide a general total process training in addition to the current focused training.)</p> <p>Incorporate training and efficiency evaluation capability into LOG-AID system (i.e., Embed training sessions into the tools used for deployment and evaluate augmentee efficiency from these sessions.)</p>
Policy	<p>Provide the UDM capability to produce more deployment-ready personnel and cargo (i.e., With the UDM being the key person with respect to streamlining the deployment process, it should be viewed as a specialized skill.)</p> <p>Develop deployment guides for each deployment position (i.e., Document deployment position information such as detailed instructions, phone numbers for points of contacts, reference pictures, etc.)</p> <p>Refine the AFIs as necessary to best guide the deployment process (i.e., The AFIs should be developed to document and control the agreed upon streamlined deployment process.)</p>
Personnel Attitude	<p>Develop a process to encourage augmentees to participate in deployments (i.e., Develop a reward system that will benefit those working as augmentees.)</p> <p>Develop a process to encourage augmentees to be committed to real world contingencies to the same level as exercises. (i.e., Ensure the Base leadership monitors and measures the effectiveness of real world deployments in a manner encouraging augmentees to work to their true potential.)</p>

Table 2. Categorized List of DPIs

3.2.4 Developing the DPI Theoretical Value

The importance of the DPIs varies with respect to their impact on the wing-level deployment process. DPIs addressing problems existing at many sites and at sites with larger deployment commitments provide more payback potential than do DPIs addressing

problems existing at one or two bases or those having relatively small deployment commitment. The following subparagraph describes the matrices used to produce the DPI ranking value used in helping develop the DPI implementation sequence.

3.2.4.1 Weighted Problem Value

Deployment problems were identified through inputs from the users/stakeholders, from observation by the data collection teams, and through the development and analysis of the As-Is models. To evaluate the magnitude and importance of these problems, they were mapped to the sites at which they occurred using a three-step process, with the completed mapping presented in Table 3.

Step 1 assigned each site a rating of "1," "2," or "3" based on its deployment responsibilities, with "3" representing the highest deployment responsibility. These rankings are in the column just to the right of the site name. Assigned by the LOG-AID team, the rating assignment considered the sites required level (size, frequency, and response time) of deployments performed. Thus, a higher ranking is assigned to sites with a higher deployment requirement and a shorter deployment timeframe. Step 2 related the problems to the sites at which they were identified. These problem-to-site relationships are indicated by the "X" at their intersections.

Step 3 computed a weighted problem value recorded in the row titled "Problem Value" and computed from information contained in the mapping matrix. The weighted problem value calculation adds the site ratings for those sites at which the problem occurs. For example, the problem "Deployment tasking varies throughout the deployment" was identified as three different sites having ratings of 2, 2, and 3 respectively. Therefore, the weighted problem value is 7 ($2+2+3$).

Table 3. Site vs. Problem Matrix Producing the Weighted Problem Values

PROBLEM	SITE RANK	SITE	Deployment taskings received from various sources	Deployment tasking varies throughout the deployment	Deployment practice differs from actual deployments	Information systems not integrated	Users required to enter same data numerous times	Site specific information systems being developed	Deployment footprint reduced using lean logistics assumptions	TRANSCOM drives the selection of deploying resources	Improvements directed primarily at the DCC	Training is task rather than process focused	Training is inadequate and an interruption	Process perceived as varying significantly among sites	Training coordination across bases does not exist	Base-level deployment improvement controls do not exist	Unit packing capabilities vary among units	Limited capability to define final destination for pallets	Tailoring objectives vary among UDMs	Tailoring coordination is not performed across deploying units	Tracking of deploying resources leaving the base is limited	DCC importance varies inversely with the level of deployment crisis	Communications, status collection, and status reporting are time consuming	Selecting personnel for deployment is cyclic because ManPower restricts some decision making information	Personnel and cargo require separate information systems and handling
WPAFB OH -- AFMC	2																								
Ohio ANG (Springfield) -- ANG	2																								
Indiana ANG (Fl. Wayne) -- ANG	2																								
WPAFB OH -- AFRES	2																								
Tyndal AFB FL -- AEIC	1																								
Eglin AFB FL -- ACC	3																								
Langley AFB VA -- ACC	3																								
Mt. Home AFB ID -- ACC	3																								
Holloman AFB NM -- ACC	3																								
McGuire AFB NJ -- AMC	3																								
Ramstein AFB Ger -- USAFE	2																								
Spangdahlem AFB Ger -- USAFE	3																								
Shaw AFB SC -- ACC/CENTAF	3																								
Maxwell AFB, AL -- SSG/AFLMA	1																								
Seymour Johnson AFB, NC -- ACC	3																								
Problem Value			18	7	21	30	17	21	3	10	9	12	12	18	30	6	22	9	18	16	13	3	22	6	27
Sum of problem values	350																								

3.2.4.2 DPI vs. Problem Mapping

Having established the Weighted Problem Value, ranking the importance of the DPIs requires, in part, the evaluation of DPIs to address one or more of those problems. Those DPI addressing more than one problem, and specifically if that problem is rated as important, receive a higher DPI-to-problem ranking.

Using the matrix of DPI vs. Problem as presented in Table 4, an "X" represents the correlation between the DPIs and the problems. The DPI vs. Problem measurement computation produces the percentage of the weighted problem values benefiting from the proposed DPI. For each DPI, the sum of the problem values for which the DPI addresses is divided by the total sum of the problem values and multiplied by 100 to arrive at a percentage score. For example, the DPI "Implement a highly integrated task receipt-to-airlift manifest information system" would provide a positive affect on 19 different identified problems having a total weighted problem values of 275. This number divided by the sum total of all the weighted problem values, which was 350, would be $275/350 = .786$. Multiplying by 100 would give a score of 78.6. This result implies this DPI benefits 78.6 percent of the total weighted problems.

Table 4. DPI vs. Problem Matrix Producing Partial DPI Ranking

	Problem Value	18	7	21	10	19	21	3	10	9	13	12	18	30	4	22	9	18	16	13	3	22	4	22
PROBLEM																								
	Personnel and cargo require separate information systems and handling																							
	Selecting personnel for deployment is cyclic because Manpower restricts some decision making information																							
	Communications, status collection, and status reporting are time consuming																							
	DCC importance varies inversely with the level of deployment crisis																							
	Tracking of deploying resources leaving the base is limited																							
	Tailoring coordination is not performed across deploying units/bases																							
	Tailoring objectives vary among UDMs																							
	Limited capability to define final destination for pallets																							
	Unit packing capabilities vary among units																							
	Base-level deployment improvement controls do not exist																							
	Training coordination across bases does not exist																							
	Process perceived as varying significantly among sites																							
	Training is inadequate and an interruption																							
	Training is task rather than process focused																							
	Improvements directed primarily at the DCC																							
	TRANSCOM drives the selection of deploying resources																							
	Deployment footprint reduced using lean logistics assumptions																							
	Site specific information systems being developed																							
	Users required to enter same data numerous times																							
	Information systems not integrated																							
	Deployment practice differs from actual deployment																							
	Deployment tasking varies throughout the deployment																							
	Deployment taskings received from various sources																							
	Process																							
	Maximize production and minimize inspection activities																							
	Capitalize on similarities between cargo and personnel																							
	Adjust responsibilities and improve the integration of units, Manpower, and personnel																							
	Collect deployment process status and effectiveness information using passive methods																							
	Better define the objective and criteria for UTC tailoring																							
	Reduce the number of coverage days included for initial deployment																							
	Improve in-transit viability																							
	Pallets																							
	Refine the APIs as needed for the deployment process.																							
	Develop individual deployment guides for each deployment augmentee position.																							
	Make the Unit Deployment Manager (UDM) an AFSC position.																							
	Training																							
	Apply real-world training characteristics to exercises																							
	Maximize training benefits																							
	Incorporate a training and efficiency evaluation capability into the LOG-AID system																							
	Information Systems																							
	Implement a highly integrated task receipt-to-airlift manifest information system																							
	Personnel Attitude																							
	Develop a process to encourage augmentees to participate in deployments																							
	Develop a process to encourage all personnel to be committed to real world contingencies to the same level as exercises																							

3.2.4.3 DPI vs. Critical Path

The critical path through the wing-level deployment process is defined as being that set of tasks or processing actions whose change in performance time impacts the completion time of the deployment process. Thus, processing times for tasks not on the critical path can be changed, within limitations, without affecting the process completion time. Thus, DPIs that benefit those tasks on the critical path are more important than those DPIs not effecting the critical path tasks with respect to process completion timeliness.

The critical path for deployment varies with respect to the type of resources being deployed. If a unit is deploying strictly personnel, then the critical path will be contained within the personnel deployment processing path. If the deployment is strictly cargo, the critical path is within the cargo processing path. However, most units deploy both personnel and cargo, and in general it was determined during data collection that if a mix of personnel and cargo are deployed by a unit, the cargo processing usually produces the longest processing timeline. Thus, for the purpose of this analysis, the wing-level deployment process for cargo was defined as being the critical path within the LOG-AID program.

As represented in Table 5, the DPIs are mapped against the lowest level deployment process activities as identified in the As-Is activity model. For each listed activity, its activity node number from the activity model precedes the activity name. Those activities identified as being on the critical path are denoted by a "1" within the Critical Path Notation row, resulting in a total of 38 critical path activities. The DPI vs. Critical Path measurement represented in percent is calculated by adding the total number of critical path activities impacted by the DPI, dividing that sum by the total number of critical path activities, and multiplying by 100. For example, the DPI "Apply real-world training characteristics to exercises" would provide a beneficial effect on 15 critical path activities. Therefore, the critical path score for this DPI would be $(15/38) \times 100 = 39.5$ percent.

	A231	A232	A233	A234	A235	A236	A237	A238	A239	A240	A241	A242	A243	A244	A245	A246	A247	A248	A249	A250
A231 DEFINE FACILITY ROOM																				
A232 IDENTIFY DEPLOYMENT SEQUENCE																				
A233 DEFINE WORK SITES																				
A236 CHECK ON-BASE SUPPLY AVAILABILITY																				
A235 REVIEW EQUIPMENTS																				
A234 ASSIGN AN EQUIPMENT ITEM																				
A233 REVIEW PERSONS DEPLOYING STATUS																				
A232 ASSIGN A PERSON CAPABILITY																				
A231 SELECT A REQUIRED CAPABILITY																				
A215 TAILOR UTC																				
A214 VERIFY/OBTAIN STANDARD UTC DATA																				
A213 LOCATE/ CORRELATE TAILORED UTC																				
A212 IDENTIFY FRAGMENTED & NON-STD UTC																				
A211 IDENTIFY TASKED UNIT																				
A14 DETERMINE BASE ALLOCATION																				
A13 ANALYZE TASK																				
A12 CONVEY BATTLE STAFF																				
A11 IDENTIFY BATTLE STAFF																				
A-03 BEDDOWN RESOURCES A FINAL DESTINATION																				
A-02 PERFORM CRISIS ACTION PLANNING																				
A-01 DEVELOP OPERATION PLAN (OPlan)																				
A-04 EVALUATE WORLDWIDE SITUATION																				
PROCESS																				
Critical Path Notation																				
DPIs																				
Process																				
Maximize production and minimize inspection activities																				
Capitalize on similarities between cargo and personnel																				
Control tasking receipts into the base																				
Adjust responsibilities and improve the integration of units, Manpower, and Personnel																				
Collect deployment process status and effectiveness information using passive methods																				
Better define the objective and criteria for UTC tailoring																				
Reduce the number of coverage days included for initial deployment.																				
Improve in-transit visibility																				
Policies																				
Refine the AFIs as necessary to best guide the deployment process.																				
Develop individual deployment guides for each deployment augmentee position																				
Make the Unit Deployment Manager (UDM) an AFSC position.																				
Training																				
Apply real-world training characteristics to exercises																				
Maximize training benefits																				
Incorporate a training and efficiency evaluation capability into the LOG-AID system																				
Include total process training																				
Information Systems																				
Implement a highly integrated task receipt-to-airlift manifest information system																				
Personnel Attitude																				
Develop a process to encourage augmentees to participate in deployments																				
Develop a process to encourage all personnel to be committed to real world contingencies to the same level as exercises																				

	A511 PREPARE UNIT PERSONNEL	A44 ASSIGN CONVEYANCE	A43 COORDINATE TRANSPORT ROUTE	A42 ARRANGE CONTRACT SUPPORT	A41 ESTIMATE TRANSPORTATION LOAD	A35 REPORT TO DCC	A34 ACCESS THE WORK CENTER INFO	A33 SET UP THE WORK CENTER	A32 PREPARE AUGMENTEE STATUS	A31 SELECT AUGMENTEE	A255 COORDINATE CHALKS	A254 COMPUTE CHALK TIMELINES	A253 IDENTIFY KEY PROCESSING EVENTS	A252 COMPUTE UTC DEPLOYMENT DURATION	A251 SCHEDULE DEPLOYMENT SITE SET UP	A25 MONITOR/CONTROL DEPLOYMENT	A244 VALIDATE MOVEMENT FLOW	A243 SEQUENCE INCREMENTS	A242 PRIORITIZE/ ASSIGN CHALKS	A241 OBTAIN UTC DETAIL	A235 IDENTIFY EQUIP ROUTE	A234 IDENTIFY STAFFING ROUTE	PROCESS	
Critical Path Notation	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	1	0	0	0	
DPIs																								
Process																								
Maximize production and minimize inspection activities														X	X						X	X		
Capitalize on similarities between cargo and personnel																								
Control tasking receipts into the base											X									X				
Adjust responsibilities and improve the integration of units, Manpower, and Personnel																								
Collect deployment process status and effectiveness information using passive methods									X		X					X					X			
Better define the objective and criteria for UTC tailoring																								
Reduce the number of coverage days included for initial deployment.																				X				
Improve in-transit visibility																		X						
Policies																								
Refine the AFIs as necessary to best guide the deployment process.											X					X								
Develop individual deployment guides for each deployment augmentee position.												X					X				X			
Make the Unit Deployment Manager (UDM) an AFSC position.																								
Training																								
Apply real-world training characteristics to exercises											X	X	X			X								
Maximize training benefits											X	X		X	X						X			
Incorporate a training and efficiency evaluation capability into the LOG-AID system											X	X	X						X	X				
Include total process training														X		X				X	X			
Information Systems																								
Implement a highly integrated task receipt-to-airlift manifest information system											X	X	X	X	X				X	X				
Personnel Attitude																								
Develop a process to encourage augmentees to participate in deployments																								
Develop a process to encourage all personnel to be committed to real world contingencies to the same level as exercises																								

Table 5. DPI vs. Critical Path Measurement Producing Partial DPI Ranking (Cont)

3.2.4.4 DPI vs. Process Criteria

The DPI vs. Process Criteria mapping produces a value based on the DPI's ability to impact criteria identified and rated by the stakeholders. The seven Process Criteria were developed from a number of sources, including Global Engagement, Joint Vision 2010, and Air Force Logistics Strategic Plan, as well as from the process stakeholders. Once identified, the Process Criteria were ranked by the stakeholders, producing the criteria weighting factor.

Each stakeholder was asked for a list of criteria they use to determine the effectiveness of a deployment. These criteria arranged by stakeholder are presented in Table 6.

USER	CRITERIA FOR SUCCESS
Wing Commander	<ul style="list-style-type: none"> • Meeting the designated take-off time. • Number and types of deployment problems encountered. • Number of frustrated cargo and personnel counted. • Level of effort required to accomplish the deployment. • Ability of deployed resources to meet mission requirements. • Rating provided by the inspection team. • Cost of the deployment • Effective interaction with non-base organizations.
IDO/DCC	<ul style="list-style-type: none"> • Comparison between Planned actual deployment completion. • Number of frustrated deploying resources. • Accuracy of the load plan. • Meeting the designated take-off time. • Availability of necessary augmentees. • Number and types of deployment problems encountered. • Timely receipt of information from units, TRANSCOM, work centers, and Battle Staff. • Overall safety of personnel and equipment.
UDM	<ul style="list-style-type: none"> • Receipt of a stable tasking within a timeframe adequate to support preparation. • Effective preparation of deploying resources. • Efficient use of unit personnel performing the preparation • Accurate and timely list from Personnel and Manpower • Number of frustrated cargo increments • Number of personnel processing problems. • Availability of the necessary transport capabilities. • Time required to prepare the necessary deploying resources. • Overall safety of personnel and equipment.
Load Planner	<ul style="list-style-type: none"> • Timely receipt of cargo information. • Receipt of accurate information as indicated by limited recomputations. • Ease of load plan development • Acceptance of load plan by the Load Master • Timely information on aircraft configuration. • Overall safety of personnel and equipment.
PDF	<ul style="list-style-type: none"> • Timely arrival of personnel • Time of processing • Number of processing exceptions • Total number of personnel processed • Amount of waiting time • Number of personnel rejected • Timely departure of personnel.

USER	CRITERIA FOR SUCCESS
CDF/In-check	<ul style="list-style-type: none"> • Timely arrival of cargo. • Number of increment documentation requiring corrections. • Number of cargo increments requiring some type of correction. • Average time required to process an increment. • Time required to correct frustrated increments. • Time required to process the necessary paper work. • Time required to interface with other deployment functions. • Number of units repeat frustrations. • Overall safety of personnel and equipment.
Manpower & Personnel	<ul style="list-style-type: none"> • Receipt of UTC personnel requirement • Time to generate the availability list and providing it to the UDM. • Time required to generate travel orders. • Timely response from the UDM.
On-Base Transportation	<ul style="list-style-type: none"> • Receipt of the Deployment Schedule of Events (DSOE). • Number of changes received during the deployment. • Capability to satisfy transport requirements. • Efficient prioritization of cargo and personnel movement.
Resource Augmentation Duty (READY)	<ul style="list-style-type: none"> • Maintaining an updated list of augmentees. • Maintaining an augmentee training file. • Having the augmentees ready and available when needed. • Having the augmentees perform effectively.
Marshaler/Ramp Coordinator (RAMPCO)	<ul style="list-style-type: none"> • Timely arrival of cargo increments. • Number & percent of rejected increments. • Timely input from Loadmaster on aircraft loading requirements. • Overall safety of personnel and equipment.
Load Master/TRANSCOM	<ul style="list-style-type: none"> • Preparedness and readiness of deployed resources for loading. • Effectiveness of the loading. • Meeting of the designated take-off time. • Overall safety of personnel and equipment.
Reception Site	<ul style="list-style-type: none"> • Ability to accommodate deployed resources. • Ability of resources to meet mission requirements.

Table 6. Stakeholder Success Criteria

Aggregating the criteria across the deployment responsibilities (stakeholders), grouping them, and removing duplications resulted in a combined set of seven criteria used by stakeholders to judge the success of a deployment. These seven criteria, along with metrics used by stakeholders to place a value on the criteria, are presented in Table 7.

DEPLOYMENT PROCESS CRITERIA	DEPLOYMENT PROCESS CRITERIA METRICS
Deployment Footprint Minimizing the amount of cargo and personnel deployed, and therefore the transportation required, to satisfy the mission objective. This includes maximizing the use of resources at the reception site and sharing common resources among units.	TIME FOR TAILORING AVIATION UTC Indicate the amount of time (in minutes) that is spent tailoring the average aviation UTC SQUADRON/UNIT TYPICALLY TASKED FOR DEPLOYMENT Identify the type of squadron or unit generally tasked for a deployment. For example: A base may have an Operational C-130 squadron, a Weather flight, a Force Protection squadron, and a Civil Engineering squadron, but the Weather flight is most often tasked for deployments. If a typical deployment includes multiple units, please identify all of them. Within the context of the squadron/unit(s) identified above, please respond to the following questions categorized into Deployment Size, Cargo, Personnel, and Deploying Resources. # OF PASSENGERS (PAX) PER DEPLOYMENT Indicate the total number of Passengers deployed on the average deployment or exercise # OF SHORT TONS (STONS) PER DEPLOYMENT Indicate the total number of STONS deployed on the average deployment or exercise # OF CONVEYANCES BY TYPE PER DEPLOYMENT Identify separately the number of conveyances (aircraft by type, trucks, CRAF, rail, etc.) used in a typical deployment % DEPLOYED RESOURCES USED AT RECEPTION/BEDDOWN SITE Indicate the percent of total resources deployed to the reception site by a unit that are actually used to support the missions.

DEPLOYMENT PROCESS CRITERIA	DEPLOYMENT PROCESS CRITERIA METRICS
Resource Utilization Minimize deploying site resources used to accomplish the deployment. These resources include the site facilities, personnel, and on-base transportation capabilities.	# OF ON BASE VEHICLES USED Indicate the average number of on base vehicles used in a typical deployment # OF MATERIEL-HANDLING EQUIPMENT (MHE) BY TYPE Identify separately the number of MHE (K-loaders, forklifts, etc.) used in a typical deployment # OF DEPLOYMENT WORK FORCE Indicate the total number of personnel involved in the deployment. % DEPLOYMENT WORK FORCE THAT ARE AUGMENTEES Indicate the percent of personnel working as augmentee during a deployment with respect to the total number of non-deploying personnel assigned to the base. % AUGMENTEE IDLE TIME PER 12 HR SHIFT For those individuals assigned as augmentees, indicate the percentage of time they are waiting for deployment related work to arrive at their station. AVG TIME TO CORRECT For all of the frustrated cargo increments identified, what is the average time required to correct each cargo increment.
Information Fusion Maximize the use of information for decision making while minimizing the resources required to prepare the information for use.	% TIME THAT DATA NEEDS TO BE CHANGED Indicate the percentage of time that data is changed from the time it is initially generated until the final data value is documented. For example, units prepare cargo increments and document each with weight, measurement, and HazMat certifications. As an increment processes through the in-check, this information is checked and changed as necessary to ensure accuracy and completeness.
Deployment Execution Time Minimize the deployment preparation time between the receipt of the tasking and the deployment of the specified mission capabilities.	TIME BETWEEN RECEIPT OF TASKING & DEPLOYMENT Indicate an estimated amount of time required from the time a tasking is received until the first aircraft, truck, or railcar departs the base % DEPARTURE TIMES MET Indicate the percentage of times an aircraft or conveyance departure is delayed due to deployment problems during a typical deployment
Flexibility Establishing the To-Be concept of operation to effectively meet the individual deployment requirements existing at various deployment sites.	DEPLOYMENT LEVEL OF EFFORT Indicate the total number of exercises and actual deployments performed in the previous fiscal year.
Quality of Deploying Resources Minimize the problems, exceptions and frustrations that occur during the deployment by improving the quality of the deployment preparation activities.	% PERSONNEL EXCEPTIONS Of all the personnel being deployed, indicate the percentage of personnel who visit at least one of PDF station other than eligibility/roll call. AVG # OF STATIONS VISITED PER PERSON Indicate the average number of PDF stations (other than eligibility/roll call) visited by deploying personnel. # CARGO FRUSTRATIONS Indicate the total percentage of cargo increments identified as frustrated during a deployment. # REJECTIONS Of the total percent of frustrated cargo increments, what percentage ends up not being included on its designated chalk. % REPAIRED AT CDF/MARSHALING YARD Of the total percent of frustrated cargo increments, what percentage is repaired within the CDF or marshaling yard. % RETURNED TO UNIT FOR CORRECTION Of the total percent of frustrated cargo increments, what percentage is returned to the unit for repair. AVG # OF PEOPLE TO CORRECT For all of the frustrated cargo increments identified, what is the average number of people involved in correcting each cargo increment.
Deployment Cost Reduce the amount of resources required to implement the deployment process.	# DOLLARS Indicate the total cost of a typical deployment from the tasking receipt until the departure completion of the deployed resources. (If possible, break down into factors such as manpower, aircraft/conveyance, MHE, vehicle rentals, etc.) # MANPOWER Indicate the total number of man-hours invested in a typical deployment.

Table 7. Deployment Performance Criteria and Metrics

During the To-Be verification trips, stakeholders were briefed on all the DPIs and the seven process criteria. The personnel were then asked to rank the process criteria from their perspective, using a ranking of "1" through "7," with "1" indicating the most important and "7" the least. The results of the criteria rankings by site are presented in Table 8.

The number of personnel responding at each site is shown in parenthesis below the site's name. A score for each criteria per site was computed by averaging out the response from the personnel. Within each intersecting cell is the average rating for each criteria by site as shown in parenthesis and the ranking of the criteria by site as shown by the integer.

In computing the rank of the field average required the inclusion of the site deployment ranking in the calculation. Table 9 shows the percentage applied to each site's criteria ranking. For example, Charleston AFB would multiply its criteria ranking by .074 in calculating the field average. The equation used was: $([\text{sum of a particular site's rank}]/[\text{sum of the range of all the site's rank}])/(\text{number of occurrence of this site's number})$. For example, Charleston had a "2" as a deployment ranking, while the sum of all sites was "27," and the number of "2's" was five. Plugging these into the equation produces $((5*2)/27/5) = .074$. Using this calculation gives the sites with a higher deployment ranking a larger impact on the overall field average.

The next step was to give a overall weight to each Process Criteria. The weighting was divided into two parts. This first part applied a direct 40 percent to the weight rated by the LOG-AID team and the other 60 percent for the second part came from a combination of the site evaluations. While the entire weighting factor is based on information collected from the user, the 40/60 percent split allows for the LOG-AID team's view of the information based on analysis, and the users view based on their understanding of the process. Table 8 shows the 60 percent multiplication factor on the criteria rank. This was the same logic used in calculating the rank of the field average previously mentioned. The only difference is that the equation was multiplied by ".6" for the resulting 60 percent. For example, the LOG-AID team rated the process criteria "Reduce

the cost of deployment” as a “6” while the stakeholders ranking was “6.26.” Therefore, the weight applied to “Reduce the cost” criteria was $0.40*(6)+.6*(6.26) = 2.4+3.75 = 6.15$, as noted in Table 8.

To facilitate the use of the ratings in the DPI vs. Process mapping, the stakeholders ratings were reversed such that within the calculations, “7” represented the most important criteria. This reverse ordering on all three measurements placed all three measurements (DPI vs. Problem, DPI vs. Process Criteria, and DPI vs. Critical Path) on a scale where a score of 100 percent represents the greatest impact.

PROCESS EVALUATION CRITERIA	Fort Wayne	Charles AFB	WWDPC	McGuire AFB	Elmendorf AFB	Mt Home AFB	Holloman AFB	Hickam AFB	Osan AB	Kadena AB	Aviano AB	Ramstein AB	Rank of Field Average	LOG-AID-AID Team	Combined Rank
Number of people providing criteria rankings at site	11	14	8	25	19	16	20	22	7	21	10	16	10		
Criteria Ranking (Computed Ranking Value)															
Reduce deployment footprint	6 (4.64)	5 (4)	4 (3.5)	6 (4.24)	4 (3.84)	3 (3.62)	5 (3.87)	5 (4)	1 (1.86)	4 (3.57)	4 (3.57)	2 (3.4)	4 (3.77)	5	5 (4.26)
Effective use of deployment resources	5 (4.55)	6 (4.79)	2 (3.12)	5 (4.04)	5 (3.84)	5 (3.87)	2 (3.44)	3 (3.54)	5 (4.14)	5 (3.67)	6 (4.5)	4 (3.9)	6 (3.95)	3	4 (3.57)
Effective use of information fusion	2 (3)	1 (2.39)	1 (3.12)	1 (3.24)	2 (3.37)	1 (3.19)	1 (2.56)	1 (3.09)	3 (3.57)	1 (3.33)	3 (3.31)	1 (2.6)	1 (3.10)	4	3 (3.46)
Reduced deployment execution time	4 (3.55)	3 (3.29)	3 (3.25)	3 (3.52)	3 (3.63)	4 (3.81)	6 (4.31)	4 (3.95)	2 (2.86)	6 (4)	2 (3.25)	6 (4.4)	3 (3.69)	2	2 (3.02)
Flexibility to satisfy various site deployment requirements	3 (18)	4 (3.5)	5 (4.62)	4 (3.56)	6 (4.47)	6 (3.94)	3 (3.44)	6 (4.27)	6 (5.14)	3 (3.57)	5 (4.31)	5 (4.3)	5 (3.93)	7	6 (5.16)
Improve quality of deploying resources	1 (2.09)	2 (3.29)	6 (4.62)	2 (3.36)	1 (3.16)	2 (3.06)	4 (3.75)	2 (3.14)	4 (3.57)	2 (3.48)	1 (2.69)	3 (3.6)	2 (3.31)	1	1 (2.38)
Reduce cost of the deployment	7 (7)	7 (6.21)	7 (5.75)	7 (6.04)	7 (5.68)	7 (6.5)	7 (6.62)	7 (6)	7 (6.86)	7 (6.38)	7 (6.19)	7 (5.8)	7 (6.26)	6	7 (6.15)

Table 8. Process Evaluation Criteria Final Results

Installation Name	Rank	Percentage Applied (60% used for Combined Rank)	Percentage Applied (100% used for Field Ave)
Indiana ANG (Fort Wayne)	2	0.044	0.074
Charleston AFB	2	0.044	0.074
Major Command (MAJCOM)	2	0.044	0.074
McGuire AFB	3	0.067	0.111
Elmendorf AFB	2	0.044	0.074
Mt Home AFB	3	0.067	0.111
Holloman AFB	3	0.067	0.111
Osan AFB	1	0.022	0.037
Kadena AFB	3	0.067	0.111
Hickam AFB	1	0.022	0.037
Aviano AB	3	0.067	0.111
Ramstein AFB	2	0.044	0.074
	Total	0.600	1.000

Table 9. Percentage of Process Criteria Site Assigned by Site

Establishment of the criteria rankings sets the basis for developing the DPI vs. Process Criteria Measurement as presented in Table 10. A correlation mapping between DPIs and criteria identified which DPIs provide the benefit to the stakeholder. The DPI vs. Process Criteria percentage score resulted from summing the criteria rankings for each correlation, dividing that sum by the sum of the weighted values, and multiplying by 100. For example, the DPI "Capitalize on similarities between cargo and personnel" benefits criteria with weights of 4.54, 4.98, 2.84, and 1.85. Therefore, the Process Criteria percentage score for this DPI is

$(4.54 + 4.98 + 2.84 + 1.85) / \text{sum of the 7 criteria weights, which is 28} =$

$(14.21/28) * 100 = 50.8$

	CRITERIA	Reduction in deployment footprint	Improve quality of deploying resources	Effective use of deployment resources	Effective use of information fusion	Reduction in deployment execution time	Cost of the deployment	Flexibility to satisfy various site deployment requirements	DPI vs Process Criteria Percentage
	Criteria Rank	3.74	4.43	4.54	4.98	2.84	5.62	1.85	
DPI									
Process									
Maximize production and minimize inspection activities			X	X		X	X	X	68.9
Capitalize on similarities between cargo and personnel				X	X	X		X	50.8
Control tasking receipts into the base				X		X		X	33.0
Adjust responsibilities and improve the integration of units, manpower, and personnel			X	X	X	X		X	66.6
Collect deployment process status and effectiveness information using passive methods				X	X	X		X	50.8
Better define the objective and criteria for UTC tailoring		X		X					29.6
Reduce the number of coverage days included for initial deployment		X		X		X			39.7
Improve in-transit usability		X				X	X		41.3
Policies									
Refine the AFIs as necessary to best guide the deployment process.				X			X	X	42.9
Develop individual deployment guides for each deployment augmentee position.			X	X		X		X	48.8
Provide the Unit Deployment Manager (UDM) capability to produce more deployment ready personnel and cargo				X		X		X	33.0
Training									
Apply real-world training characteristics to exercises		X			X	X			41.3
Maximize training benefits		X		X	X	X		X	64.1
Incorporate a training and efficiency evaluation capability into the LOG-AID system					X	X		X	34.6
Include total process training		X		X	X	X		X	64.1
Information Systems									
Implement a highly integrated task receipt-to-airlift manifest information system		X	X	X	X	X		X	79.9
Personnel Attitude									
Develop a process to encourage augmentees to participate in deployments			X	X				X	38.6

Table 10. DPI vs. Process Criteria Measurement

3.2.4.5 Combined DPI Ranking

Having ranked the DPIs from the three perspectives of DPI vs. Problem, DPI vs. Process Criteria, and DPI vs. Critical Path, the combined DPI ranking results from their integration. Table 11 presents the integrated value for each DPI by averaging the three perspective percentage and ranking those averages to produce the final DPI ranking order.

DPIs	DPI vs. Problem Percentage	DPI vs. Process Criteria Percentage	DPI vs. Critical Path Percentage	Avg of 3 Scores	Overall Rank
Process					
Optimize production and minimize inspection activities	41.7	68.9	57.9	56.2	2
Capitalize on similarities between cargo and personnel	40.3	50.8	36.8	42.6	11
Control tasking receipts into the base	31.7	33.0	15.8	26.8	15
Adjust responsibilities and improve the integration of units, Manpower, and Personnel	82.3	66.6	2.6	50.5	3
Collect deployment process status and effectiveness information using passive methods	38.0	50.8	31.6	40.1	12
Better define the objective and criteria for UTC tailoring	29.1	29.6	7.9	22.2	18
Reduce the number of coverage days included for initial deployment.	19.1	39.7	7.9	22.3	17
Improve in-transit visibility	30.6	41.3	23.7	31.9	13
Policies					
Refine the AFI's as necessary to best guide the deployment process.	62.9	42.9	31.6	45.8	7
Develop individual deployment guides for each deployment augmentee position.	36.6	48.8	47.4	44.2	9
Provide the UDM capability to produce more deployment ready personnel and cargo	51.4	33.0	47.4	43.9	10
Training					
Apply real-world training characteristics to exercises	54.0	41.3	39.5	44.9	8
Maximize training benefits	49.1	64.1	36.8	50.0	4
Incorporate a training and efficiency evaluation capability into the LOG-AID system	58.0	34.6	52.6	48.4	5
Include total process training	39.7	64.1	39.5	47.8	6
Information Systems					
Implement a highly integrated task receipt-to-airlift manifest information system	78.6	79.9	55.3	71.3	1
Personnel Attitude					
Develop a process to encourage augmentees to participate in deployments	46.3	38.6	2.6	29.2	14
Develop a process to encourage all personnel to be committed to real world contingencies to the same level as exercises	25.7	22.4	23.7	23.9	16

Table 11. Combined DPI Rankings

While Table 11 presents the final combined ranking, Table 12 compares the final rankings by site and to those generated by the LOG-AID team. The importance of this comparison lies in the fact that while some minor ranking variations exists, there is a strong consistent trend across sites as well as with the LOG-AID team. This correlation indicates two major conclusion. One, the various sites view and measure the success of their deployment process in much the same manner, thus, benefits from improvements identified for one site will also be reflected in other sites. Two, correlation with the LOG-AID team indicates the in-depth understanding and appreciation of the deployment process gained by the LOG-AID team. As a result, the analysis and conclusions generated by the LOG-AID team truly address the user requirements for the deployment process.

DPIs	Fort Wayne (11)	Charles AFB (14)	WWDPC (8)	McGuire AFB (25)	Elmen AFB (19)	Mt Home AFB (16)	Hollo AFB (20)	Hickam AFB (22)	Osan AB (7)	Kadena AB (21)	Aviano AB (16)	Rams AB (10)	Rank of Field Ave	LOGAID TEAM	Combined Rank
Process															
Maximize production and minimize inspection activities	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Capitalize on similarities between cargo and personnel	11	11	11	11	11	11	11	11	10	11	11	11	11	11	11
Control tasking receipts into the base	14	14	15	14	15	15	15	15	13	15	15	15	15	16	15
Improve integration of units, Manpower, and Personnel	4	4	3	4	4	4	3	3	3	4	4	4	4	3	3
Collect deployment process data using passive methods	12	12	12	12	12	12	12	12	11	12	12	12	12	12	12
Better define the objective and criteria for UIC tailoring	17	17	18	18	18	17	17	18	18	18	17	17	18	17	18
Reduce the number of coverage days included for initial deployment.	16	16	17	16	17	16	16	17	17	16	16	16	16	18	17
Improve in-transit visibility	13	13	13	13	13	13	13	13	15	13	13	13	13	13	13
Policies															
Refine the AFIs as necessary to best guide the deployment process.	9	10	10	10	8	10	10	9	9	10	8	9	10	6	7
Develop individual deployment guides for each position.	10	9	7	9	10	9	7	7	7	8	10	8	9	9	9
Provide UDM capability to produce more deployment ready personnel/cargo	8	8	9	8	9	8	8	8	6	9	9	7	8	10	10
Training															
Apply real-world training characteristics to exercises	7	7	8	7	7	7	9	10	12	7	7	10	7	8	8
Maximize training benefits	3	3	4	3	3	3	4	4	5	3	3	3	3	4	4
Incorporate a training/efficiency evaluation capability into LOG-AID system	5	6	6	5	5	6	6	6	4	6	6	6	6	5	5
Include total process training	6	5	5	6	6	5	5	5	8	5	5	5	5	7	6
Information Systems															
Implement a highly integrated task receipt-to-airlift manifest info sys	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Personnel Attitude															
Develop a process to encourage augmentees to participate in deploy	15	15	14	15	14	14	14	14	14	14	14	14	14	14	14
Develop a process to encourage personnel to be committed to real world contingencies to the same level as exercises	18	18	16	17	16	18	18	16	16	17	18	18	17	15	16

Table 12. DPI Rankings by Site

3.2.5 Implementation

With the DPIs now ranked, an analysis of options (technologies/policies/etc.) to implement the DPIs was addressed. This required an in-depth understanding of the DPIs, and existing and planned technologies. Available options for DPI implementation will be evaluated for best overall benefit. The selection of best options will follow the completion of the field test when more detailed improvement information will be available and will continue into that point in time when the improvement implementation occurs.

The implementation criteria considered are cost, risk, ease of implementation, time to implement, scalability, and applicability to redeployment. These criteria evolved from the same process as the previously described Process Criteria and the stakeholders were prompted to provide criteria they considered important if changes were made to their deployment process. The resulting list of implementation criteria and their associated metrics are presented in Table 13.

DPI IMPLEMENTATION CRITERIA	DPI IMPLEMENTATION CRITERIA METRICS
Ease of Implementation Minimize the resources required to implement a DPI and the necessary technology.	# Manpower Indicate the number of labor hours required to implement the DPI and the necessary technology. # Dollars Indicate the cost for the required labor hours.
Risk Maximizing the probability that the To-Be concept of operation can be successfully implemented. This will be judged by the availability of the technologies identified, and the successful previous implementations of the process concept and technologies.	# Dollars Acceptance Indicate the level of acceptance the user has for the implementation of a DPI and the necessary technology.
Time to Implement The length of time required to implement a DPI or technology and the time frame in which that implementation can be initiated.	# Years or months Indicate the number of months required to implement a DPI and the necessary technology.
Cost The estimated amount of resources required to implement a DPI or technology.	# Dollars (Technology) Indicate the cost associated with accessing a desired technology.
Scalability Providing for the capability to implement the improved process using various levels of technology implementation and to incorporate new technologies without requiring significant changes to the process.	Implementation level of effort Indicate the level of capability that exists to insert other technologies once a DPI has been implemented with the initial technology.
Applicability to Redeployment Provide for the capability to apply some of the improved processes and technologies to the redeployment process.	Similarities with redeployment Indicate the level of applicability that a DPI and its implementing technology, as implemented in the deployment process, has to the redeployment process.

Table 13. Stakeholder-Defined Implementation Criteria and Metrics

3.2.6 Agile Combat Support Process and Technology Center (ACSPTC)

The ACSPTC provides the capabilities to learn the current tools used in the deployment process and test the effectiveness of tools developed for future implementation into the deployment

process. Tradeoff analysis of these tools based on empirical data can be performed along with a variety of analysis to include technology costs (interfaces, reprogramming, etc.), transitions and transfer (Research and Development [R&D] to acquisition), magnitude of payback benefits (impact of Air Mobility Express [AMX] to Commander-in-Chief [CINC] Time-Phased Force Deployment Data [TPFDD], impact of Lean Log to theater depot timelines or smaller Readiness Spares Packages [RSPs]), and modeling and simulation using an end-to-end approach (factory to foxhole, strategy to task).

The room set up includes "story boards" to demonstrate the As-Is and To-Be process relation and interaction for employment driven requirements, reachback, deployment, pipeline analysis for performance, and time definite delivery. Associated with the "story boards" are the software/hardware applications (existing and R&D) that support each process and facilitate analysis by subject matter experts in isolation or as part of exercise/wargame play. These tools contained within ACSPTC include those listed in Table 14.

ACRONYM NAME	NAME	PURPOSE
BCAT	Beddown Capability Assessment Tool	Performs a time-phased assessment of base capabilities and employment requirements
DeMS	Deployment Management System	Assigns manpower and equipment resources against UTC requirements
JLP	JPT Logistics Planner	Conducts a high level assessment of logistics capabilities and requirements to support the air campaign
JPT	JFACC Planning Tool	Supports the development of the CINC's air campaign strategy to achieve military objectives
LOGMOD(B) LOGMOD(M)	Logistics Module (Base Level) Logistics Module (MAJCOM Level)	Support logistics planning and UTC reporting during OPLAN development and execution
MANPER(B) MANPER(M)	Manpower/Personnel Module (Base Level) Manpower/Personnel Module (MAJCOM Level)	Supports manpower planning and UTC reporting during OPLAN development and execution
OT&P	Operational Tasking and Priorities	"Feeder" system for reviewing, refining, and updating Air Force tasking in the Joint Operations Planning and Execution System (JOPES)
UTC-DT	Unit Type Code - Development and Tailoring	Supports the development and tailoring of UTCs to meet deployment requirements

Table 14. ACSPTC Deployment Support Tools

3.3 CONOP Development

The CONOP development signifies the transition from defining the requirements for the To-Be wing-level deployment process to designing the process that satisfies those requirements. The basic CONOP description was derived from the To-Be models, specifically the To-Be activity and data models. The To-Be models provided the basis for describing what the had to be accomplished within the deployment CONOP, while the simulation provided the performance conditions (such as performance timing and process flow).

A combination of the To-Be models and the simulation focused the analysis and selection of implementation technologies by identifying the technology requirements and their performance specifications. Also, a simulation comparison between the current deployment process and the To-Be deployment CONOP provided an estimation of benefits anticipated from the implementation of the deployment CONOP. This section discusses the various aspects to the deployment CONOP development.

3.3.1 As-Is and To-Be Process Definition Overview

Figures 6 and 7 present top-level descriptions of the current wing-level deployment process and the deployment CONOP respectively. The major differences between the As-Is and To-Be process concepts are the removal of non-value added activities, the reduced use or quality check activities, reduced processing time through the application of equipment handling capabilities, and elimination or reduction on information processing activities through the use of automation.

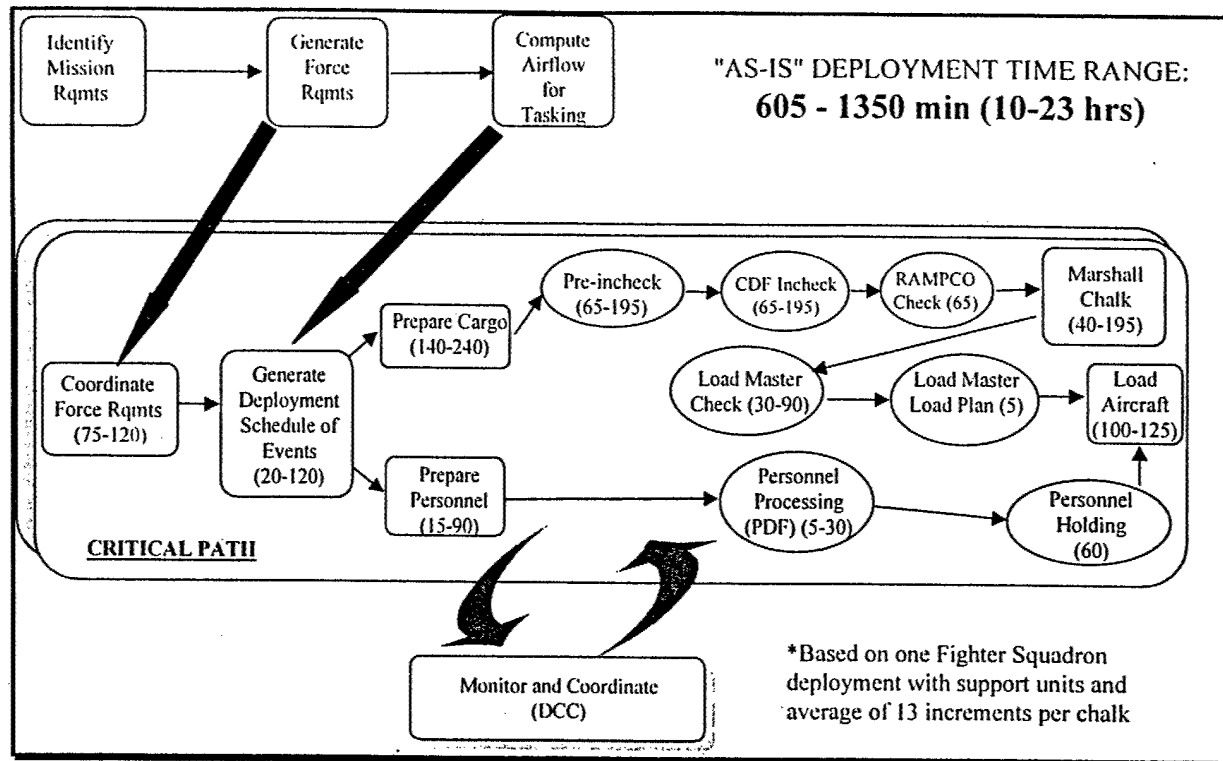


Figure 6. Top-Level Description of the Current Wing-level Deployment Process

The flow of current deployment process starts with a tasking identifying the force requirements necessary to satisfy mission objectives which arrive independently at both the wing and TRANSCOM. Using standard UTC information, TRANSCOM computes transport and airflow requirements, which they then provide to the deploying units. In parallel, the assigned force requirements trigger the wing to initiate their deployment activities by producing a DSOE. The DSOE development includes a two-stage process. First, the schedule represents a set of integrated task durations that reflect the deployment process timeline needed to deploy the wing. Second, using the assigned airflow's defined by TRANSCOM action times are computed to replace the time duration representations. Because the two levels of planning are performed in parallel, adjustments are made to the deployment timeline to accommodate the airflow times and to adjust to the assignment of aircraft type different from initially anticipated.

Once developed, the DSOE provides the official guidance and timeline for performing the deployment effort to satisfy the delivery of the required forces. In accordance with airlift availability and mission requirements the units select and tailor equipment and AFSCs, the units then develop a DSOE schedule to prepare their cargo and personnel for deployment. Upon

preparation completion, the cargo moves by forklifts and flatbed trucks through a series of handling and inspection activities. As various steps are completed in the deployment process, phone calls to the DCC provide status updates. While the number and type of inspections vary somewhat from site-to-site, the general inspections for cargo include a pre in-check, a CDF in-check, a marshaling check, and a Load Master check prior to actual loading. For personnel, the general inspection includes a unit check, a PDF check and a loading check prior to actual loading. In addition to the checks, personnel often wait in the PDF for long periods of time prior to loading.

From the marshaling area the cargo increments are moved to and loaded into the aircraft. This process occurs in a number of ways depending on the type of increment and the availability of material handling equipment. Rolling stock may move to the aircraft under its own power, moved via a k-loader, or placed on a pallet. Rolling stock, such as a C-10 Air Conditioner will likely be towed to the aircraft then either pushed, pulled, or wrenched aboard. The majority of pallets are loaded onto a k-loader in the marshaling area using forklifts, and the k-loader then transports the increment to the aircraft and supports the increment transfer into the aircraft.

LOG-AID's 2010 Concept of Operation, as illustrated in Figure 7, streamlines this process from the perspectives of both information processing, and resource (personnel and cargo) preparation and loading.

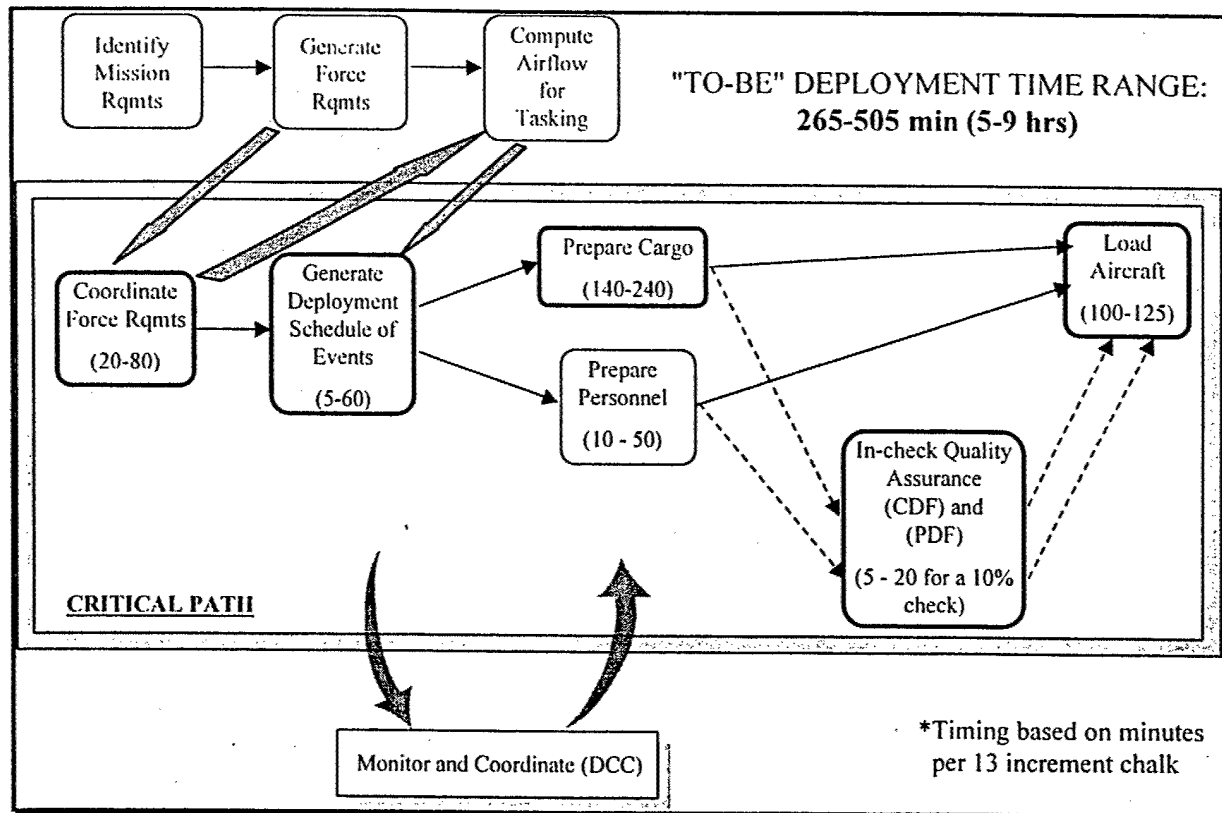


Figure 7. Top-Level Description of the To-Be Wing-level Deployment Process

As is currently accomplished, the force requirements are received in parallel by both the wing and TRANSCOM. However, through the application of an integrated, efficient LOG-AID Integrated Deployment System 2010 (IDS2010) capability, the deploying units define, coordinate, and communicate their deployment requirements to TRANSCOM in a timely manner so as to impact TRANSCOM's assignment of transports.

The intent behind IDS2010 is to apply a functional approach to accessing and organizing the information necessary to suggest the appropriate decisions, then present those suggested decisions to the appropriate users for review, adjustments, and acceptance. IDS2010 allows the personnel to be decision-makers and minimizes their information handling requirements.

This improved information processing addresses all aspects of deployment planning. These aspects of deployment planning include the tailoring of resources through the integration of site survey information, the coordination of deploying resources across units from various bases going to the same reception site, and the tailoring of UTC resources based on previous

experience and on assets currently in the deployed Area of Responsibility (AOR). IDS2010 also supports the selection of personnel and equipment to fill the deployment requirements, and the development of an integrated DSOE. Furthermore, during the deployment, IDS2010 supports the status tracking and problem identification during the deployment effort.

Effectively implemented, IDS2010 provides support to the current concept of the DCC. Currently the operations within the DCC focus on coordination and correction, IDS2010 will minimize the need for manual coordination, reduce the need for corrective actions based on erroneous information, and identify opportunities for adjusting the deployment processing timeline based on the continuously updated status information. Thus, many of the physical aspects of the DCC will be adjusted so as to place less significance on the DCC and more on the deployment process.

The design of the DCC will also change to provide more direct awareness of the deployment operations. This requires that the DCC be capable of directly observing the holding and loading area, and preferably to allow the DCC personnel to video tape what is happening with the deployment process. This allows personnel to review the deployment to find out what went wrong, and how it can be handled better in the future.

We now move from the process planning that is highlighted by information processing and decision making, to the actual preparation and handling of the material and personnel processing as dictated by the planning information. The preparation begins with a greater emphasis on keeping the deploying resources (both personnel and equipment) in a deployment ready state. In accordance with the deployment tasking, units make the limited number of preparation adjustments required.

Using the improved technology capabilities provided to them, units prepare their resources to such a quality state that they can move a majority of the deploying resources directly from the unit to the aircraft. To ensure flight safety, a limited number of resources receive a Quality Assurance (QA) check prior to loading. For personnel, this check will correct any deployment default already identified. For equipment, this check will continue for increments with Hazardous Materials (HAZMAT), increments prepared by units with history of bad preparation,

increments containing items from multiple units and increments selected at random to maintain continued flight safety.

The actual movement of increments will be completed by effectively utilizing existing and new technologies. Through the increased movement speed, the goal will be to move increments from the units to the aircraft, while leaving open the possible need for a short term holding area. Moving increments more effectively requires that k-loaders and forklifts be used primarily for short distance moves while other technologies, such as pallet dollies, would provide a faster long-distance movement capability.

3.3.2 Performance Analysis

The results of the data collection and modeling efforts were tested using a dynamic simulation technique called WITNESS[®]. As shown in Figure 8, the models provided the framework for the simulations. The simulations used performance data, collected from the Air Force sites throughout various MAJCOMs. The collected data included activity timing, branching conditions among activities, and resources responsible for performing activities within the deployment process. Characteristics of the individual processes were defined with a number of probability distributions appropriate to the wing-level deployment environment. The conditional behavior of the system was studied to assess flow rates, bottlenecks, idle time, throughput, cycle times, workload, and other dynamic properties.

As part of the field testing of the DPIs, these dynamic simulations will be used to conduct "what-if" analyses to determine the effects the DPIs are likely to have on the wing-level deployment process. Used in this manner, the dynamic simulations provide a means of exploring alternative implementation approaches without requiring expensive and extensive on-site experiments.

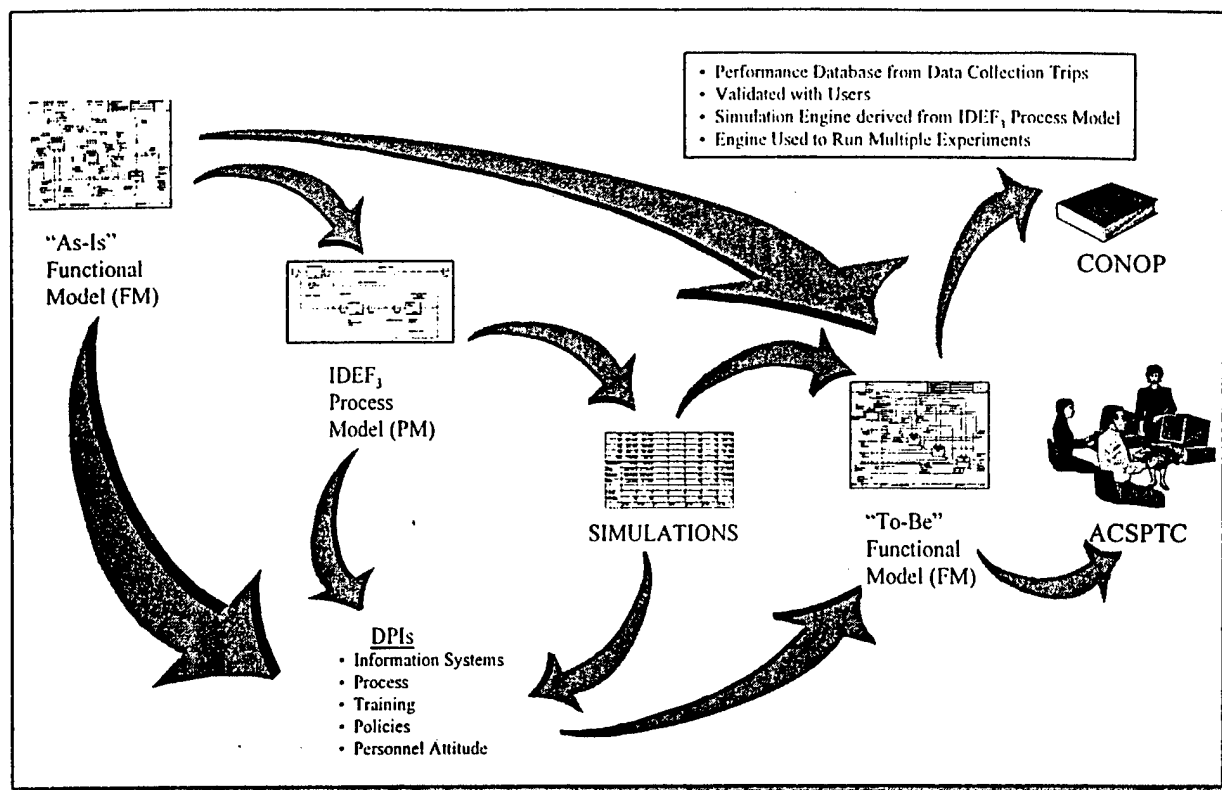


Figure 8. Simulation Support of LOG-AID

3.3.2.1 Performance Data

The dynamic characteristics of the wing-level deployment process were collected at each Air Force base visit. The simulations used performance data collected from the AF bases visits, previous conducted AF studies such as Action Workout

(AWO) efforts on the deployment process at Robins AFB, GA in November 1996 and February 1997 and wing-IDEF, and maximum acceptable response times defined by another AFRL research effort (ITI-ALC).

The performance data collected and analyzed encompassed three types:

- Duration time to complete a process;
- Frequency of occurrence of a process or product; and
- Delay or response time for specific exceptions

- (e.g., the time between the request from the wing to MAJCOM for clarification and more detail on a fragmented or non-standard UTC and the time the MAJCOM responds with the details).

3.3.2.2 Assumptions

The following operational assumptions apply to the LOG-AID simulations.

- All personnel necessary to perform the jobs are available.
- If an increment is rejected in the CDF and sent back to the unit, it is repaired or replaced correctly and does not get frustrated again in the CDF.
- There is only one increment of mobility bags per chalk.
- One transport accepts all the passengers and mobility bags from one unit, thus the personnel and cargo from one unit is not split across transports.
- In the As-Is simulation, all personnel process through the PDF, and at least stop at the eligibility check, ID/Dog tags, and medical work stations. In the To-Be simulation only those personnel requiring processing through a work station stop at the PDF.
- There is a 20-minute delay between the time the last passenger is loaded on the aircraft and the aircraft takes off and departs the base.

In addition to the operational assumptions, Table 15 presents the variations in process flow between the As-Is and To-Be simulations. The As-Is percentages came from the stakeholders during the data collection process and incorporated into the simulation as a triangular distribution around those numbers. Using the same triangular distribution approach, the To-Be percentages were based to a great extent on goals placed on the To-Be processing concept but judged realistic and attainable by users.

<i>Deployment Processing Action</i>	<i>As-Is Percent</i>	<i>To-Be Percent</i>
Unit Pre In-check finds a problem with cargo and fixes it	12	6
Unit Pre In-check finds a problem with cargo and sends it back to the unit buildup	3	1.5
CDF finds a problem with cargo and fixes it	7	2
CDF finds a problem with cargo and sends it back to the unit	3	1
Personnel Processing through PDF	100	2
RAMPCO finds a problem with cargo and must fix it	2	0

Table 15. Assumptions Used in the As-Is and To-Be Simulations

The baseline scenario for comparing the As-Is and To-Be simulations consisted of the same number of chalks, squadrons or units, increments, and passengers per chalk as shown in Table 16. While not representing any one specific type of squadron or unit, the scenario numbers were selected as a general representation of a deployment size.

CHALK 1	Total Increments: 15	Total Passengers: 38
Unit: #1	Increments: 3	Passengers: 3
Unit: #2	Increments: 10	Passengers: 4
Unit: #3	Increments: 4	Passengers: 31
CHALK 2	Total Increments: 11	Total Passengers: 51
Unit: #1	Increments: 4	Passengers: 23
Unit: #2	Increments: 6	Passengers: 21
Unit: #3	Increments: 1	Passengers: 7
CHALK 3	Total Increments: 18	Total Passengers: 47
Unit: #1	Increments: 6	Passengers: 27
Unit: #2	Increments: 4	Passengers: 2
Unit: #3	Increments: 8	Passengers: 18
CHALK 4	Total Increments: 2	Total Passengers: 18
Unit: #1	Increments: 2	Passengers: 18
CHALK 5	Total Increments: 7	Total Passengers: 7
Unit: #1	Increments: 4	Passengers: 4
Unit: #2	Increments: 1	Passengers: 1
Unit: #3	Increments: 2	Passengers: 2
CHALK 6	Total Increments: 7	Total Passengers: 12
Unit: #1	Increments: 1	Passengers: 11
Unit: #2	Increments: 6	Passengers: 1

Table 16. Simulation Scenario

A summary of the simulation results and improvements identified by the DPIs is presented in Table 17. The left column identifies some important parameters analyzed in the simulations. The As-Is and To-Be columns depict the results of the simulation in minutes. The improvement column depicts the percentage of the total improvement. The numbers are based on the exercising of a Monte Carlo simulation run consisting of one hundred runs.

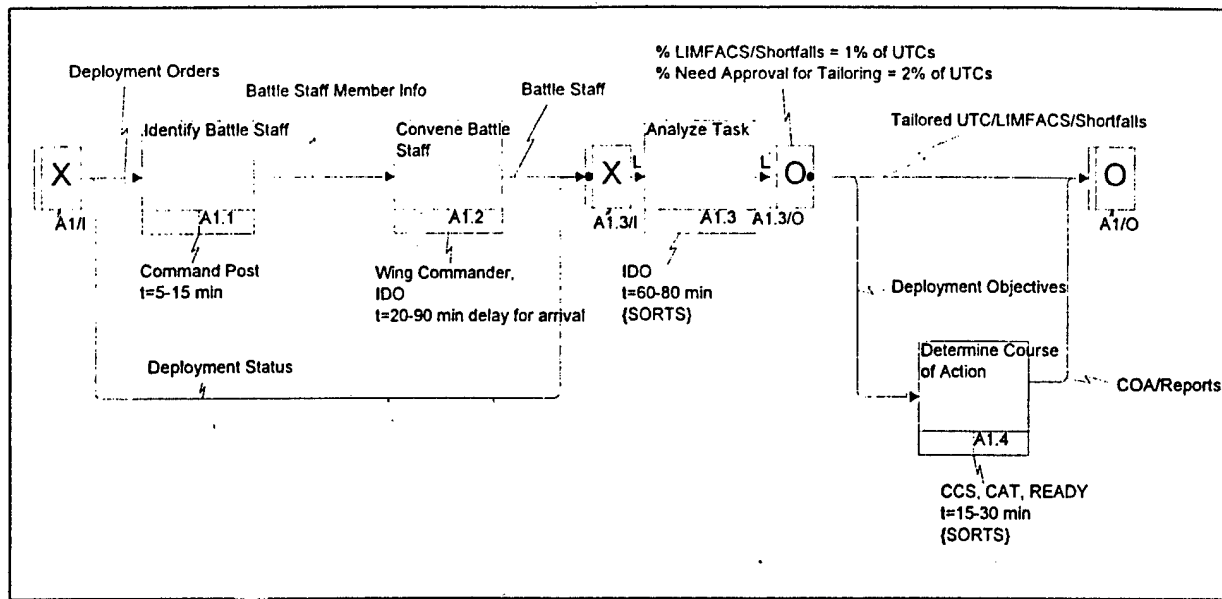


Figure 10. To-Be Network

3.3.2.4 Sensitivity Analysis

Monte Carlo experiments, each consisting of one hundred runs, were conducted to produce sets of deployment process timelines for the purpose for testing the sensitivity or impact that any one step has on the overall deployment process. The experiments were conducted by systematically changing the time of the selected process step while retaining the same distribution for all other aspects of the process.

The LOG-AID team recognized early on that results of simulation may be sensitive to certain values. As a result, sensitivity analyses were conducted on those simulations which 1) rely on low number of data points, 2) exhibit a wide variation in data points, 3) depend on areas of judgment by the subject matter experts, and 4) rely on activities of the network which are major areas of constraints for users, such as “transporting” and “CDF processing.”

Figures 11 and 12 depict the sensitivity analyses results from the Monte Carlo experiments on the network representing the wing level deployment process. The x-axis identifies the percentage change in the parameter tested and the y-axis depicts the percentage change in the deployment execution time. Figure 11 illustrates that changes in processing steps within the deployment process had little impact on the DSOE development and load plan computation

times. For this reason, additional data was not required to be collected for these areas. For example, the time to develop the load plan was comprised of a low number of data points. An analysis was conducted to determine how sensitive the simulation was to changes to this period of time. As shown in the second data series (Load Plan Computation Time) in Figure 11, as the time to perform the activity changed by 50 percent, the total deployment execution time changed by only 1.25 percent. The sensitivity analysis concluded that the total time for deployment execution was not sensitive to the variability in this data.

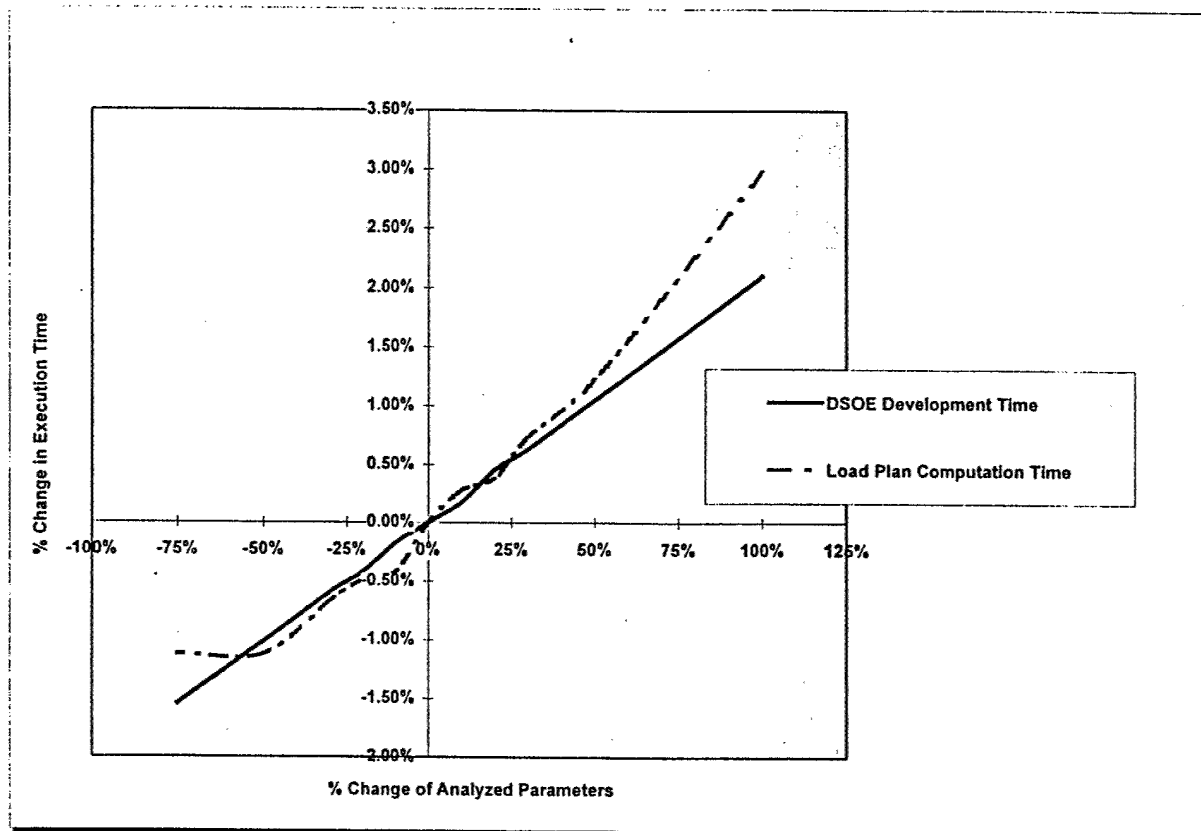


Figure 11. Sensitivity Analysis (Non-Sensitive Parameters)

The sensitivity analysis identified that the network is sensitive to certain pieces of data, as can be seen in Figure 12. The x-axis identifies the percentage change in the parameter tested. The y-axis depicts the percentage change in the deployment execution time. For example, the time to process cargo in the CDF appeared to be one of the bottlenecks in the process. As shown in the second data series in Figure 12, as the time to perform the CDF processing changed by 50 percent, the total deployment execution time changed by 12 percent.

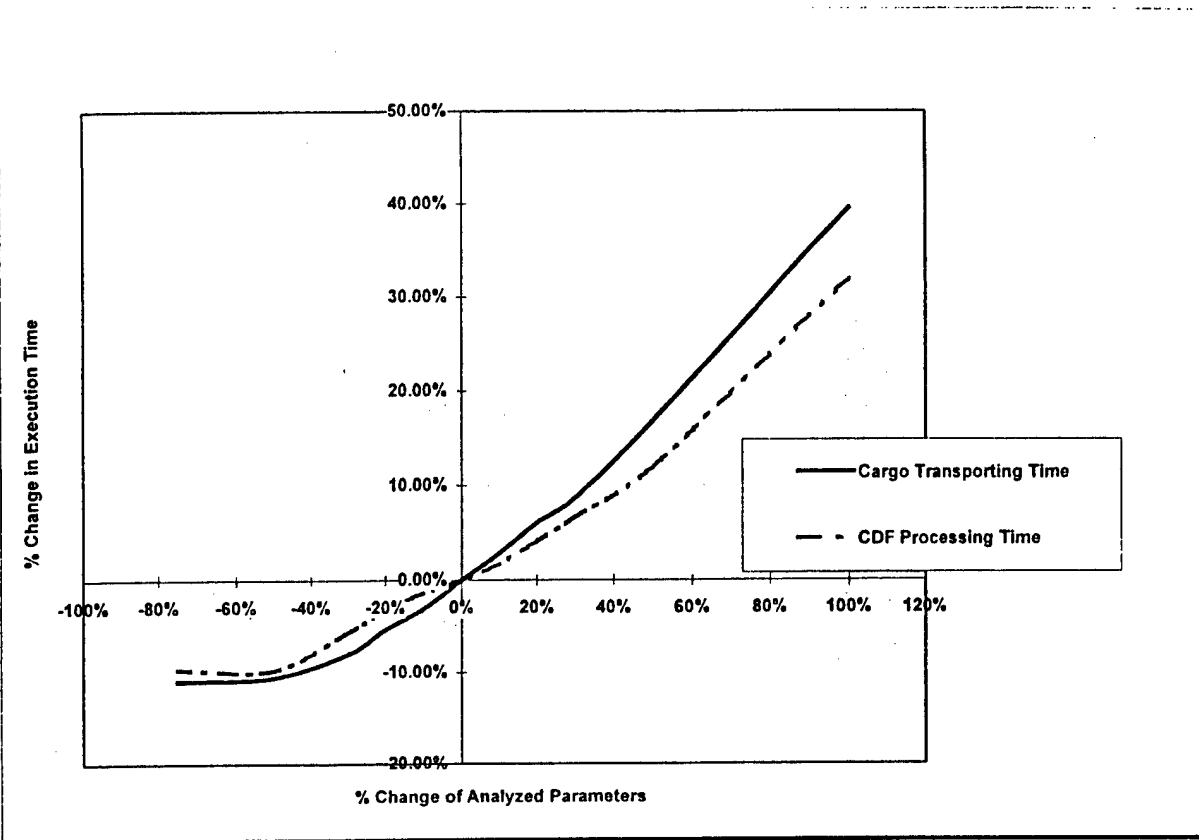


Figure 12. Sensitivity Analysis (Sensitive Parameters)

3.3.3 Technology Analysis

Through the development and analysis of the As-Is and To-Be models, considerations turned to a search of the technologies that could be used to implement the To-Be deployment process. Because the implementation of the To-Be process aims at the year 2010, the technologies considered for use are those already in existence, being developed, or anticipated to be available by that time period. In addition to the technologies available or being developed for other purposes, requirements for new technologies also came from the analysis of the To-Be processing needs.

The guidelines for identifying and selecting the technologies came in the form of functional requirements and performance specifications. The functional and data models defined what the technologies had to perform in terms of the activity definition, data processing, and interfacing. The simulation model defined the performance or operational characteristics required of the technology.

3.3.4 Preliminary Cost Analysis

The LOG-AID program focused on improving the wing-level deployment process through the identification of innovative process improvements and technologies as documented in the LOG-AID CONOP. These improvements enhance the stakeholder's ability to satisfy deployment requirements while increasing deployment efficiency. As previously stated, the process improvements identified through the LOG-AID program for a fighter squadron having 13 increment per chalk went from a processing time of 10 to 23 hours down to a predicted time of 5 to 9 hours.

In addition to performance, improvement should also be reflected in a reduced cost to perform the deployment process. While it is realized that a cost saving benefit analysis does not provide a precise picture of the cost savings, it does provide good insights into potential cost savings percentages. Having stated this limitation, Table 18 summarizes the preliminary cost savings based on personnel cost resulting from the differences between the As-Is deployment process and the To-Be deployment process as defined in the LOG-AID CONOP.

Applying cost values in terms of the salaries of personnel involved in the force generation process from the time of unit notification through aircraft loading results in an average cost savings of approximately 58 percent. Similar cost savings would also occur in other deployment support functions such as the Command Post where personnel are involved from organizations such as Transportation, Security Police, and Communications.

These cost numbers are derived from the As-Is and To-Be deployment processing described in Figures 6 and 7 respectively. The minimum (min), maximum (max), and average (ave) costs correspond to the performance times assigned to deployment processing tasks multiplied by the salaries of individual types performing the deployment tasks using the baseline scenario involving one chalk of 13 increments and 20 personnel. The As-Is Cost row presents the costs for the performance of the deployment process as currently performed. The To-Be Cost row presents the cost savings associated with those tasks removed or reduced from the As-Is process to produce the To-Be CONOP. Thus, subtracting the To-Be Costs savings from the As-Is Costs produces the processing cost for the To-Be CONOP. The Percent Savings row then presents the percent of the cost savings with respect to the As-Is Cost.

	Min	Max	Ave
As-Is Cost	\$2370.69	\$5131.15	\$3750.92
To-Be Cost	\$1241.50	\$3088.91	\$2165.20
% Savings	52%	60%	58%

Table 18. Computation of Estimated Cost Savings

Table 19 presents the military personnel salaries by rank used in the cost analysis calculation. Computed through 1998, the rates are presented in terms of both hours and minutes, with the per minute rate used for the cost analysis.

	96 Qtrs (w/dep)	BAS (8.06*30)	Base Pay	Monthly Pay	1997 3% inc	1998 3% inc	Hourly Rate ***	Minute Rate
Amn(E2)	\$345.60	\$241.80	\$980.70	\$1,568.10	\$1,615.14	\$1,663.60	\$10.40	\$0.17
SrAmn (E3)	\$363.60	\$241.80	\$1,161.90	\$1,767.30	\$1,820.32	\$1,874.93	\$11.72	\$0.20
Sgt (E4)	\$390.00	\$241.80	\$1,354.20	\$1,986.00	\$2,045.58	\$2,106.95	\$13.17	\$0.22
SSgt (E5)	\$448.50	\$241.80	\$1,592.10	\$2,282.40	\$2,350.87	\$2,421.40	\$15.13	\$0.25
TSgt(E6)	\$498.90	\$241.80	\$1,890.00	\$2,630.70	\$2,709.62	\$2,790.91	\$17.44	\$0.29
MSgt (E7)	\$539.70	\$241.80	\$2,172.00	\$2,953.50	\$3,042.11	\$3,133.37	\$19.58	\$0.33
SMSgt (E8)	\$581.40	\$241.80	\$2,713.50	\$3,536.70	\$3,642.80	\$3,752.09	\$23.45	\$0.39
CMSgt (E9)	\$630.60	\$241.80	\$3,077.40	\$3,949.80	\$4,068.29	\$4,190.34	\$26.19	\$0.44
ILT	\$524.70	\$149.67	\$2,532.30	\$3,206.67	\$3,302.87	\$3,401.96	\$21.26	\$0.35
Capt	\$614.40	\$149.67	\$3,176.70	\$3,940.77	\$4,058.99	\$4,180.76	\$26.13	\$0.44
Maj	\$742.50	\$149.67	\$4,051.80	\$4,943.97	\$5,092.29	\$5,245.06	\$32.78	\$0.55
*** Assumption: 4 weeks * 40 hours/week = 160 hours/month								

Table 19. Labor Costs Used as the Cost Analysis Basis

Table 20 represents the As-Is deployment cost analysis with respect to labor used to produce the As-Is cost numbers presented in Table 18. The table is separated into the major activities preformed within the As-Is process, with a total cost associated with each activity. For each major activity the minimum, maximum, and average times for performing the tasks are listed along with personnel ranks of those usually assigned to the activity. Based on the rank, the pay rate of that rank, and the performance time, the minimum, maximum and average activity cost is computed. The total cost results from the sum of the all the individual activities.

COORDINATION									
DCC Monitor		Min	Max	Ave					
	Time	605.00	1,350.00	977.50					
	Capt	\$263.48	\$587.92	\$425.70					
	1st Lt	\$214.39	\$478.40	\$346.40					
	MSgt (3)	\$592.40	\$1,321.89	\$957.15					
	TSgt (2)	\$351.77	\$784.94	\$568.36					
	Amn (3)	\$314.52	\$701.83	\$508.18					
	Totals	\$1,736.57	\$3,874.98	\$2,805.77					
Coordinate Force		Min	Max	Ave	Generate DSOE		Min	Max	Ave
Req's	Time	75.00	120.00	97.50		Time	20	120	70.00
	TSgt (3)	\$65.41	\$104.66	\$85.04		Capt	\$8.71	\$52.26	\$30.48
	MSgt (3)	\$73.44	\$117.50	\$95.47		Totals	\$8.71	\$52.26	\$30.48
	Capt	\$32.66	\$52.26	\$42.46					
	Totals	\$171.51	\$274.42	\$222.97					
CARGO									
Prepare Cargo		Min	Max	Ave					
	Time	140	240	190.00					
	TSgt	\$40.70	\$69.77	\$55.24					
	SSgt	\$35.31	\$60.53	\$47.92					
	Amn	\$24.26	\$41.59	\$32.93					
	Totals	\$100.27	\$171.90	\$136.09					
Pre In-check		Min	Max	Ave	Marshal		Min	Max	Ave
	Time	65.00	195.00	130.00		Time	40	195	117.50
	TSgt	\$18.90	\$56.69	\$37.79		SSgt	\$10.09	\$49.18	\$29.64
	SSgt	\$16.39	\$49.18	\$32.79		Amn	\$6.93	\$33.79	\$20.36
	Totals	\$35.29	\$105.88	\$70.58		Totals	\$17.02	\$82.98	\$50.00
CDF In-check		Min	Max	Ave	L M Check		Min	Max	Ave
	Time	65.00	195.00	130.00		Time	30	90	60.00
	SSgt	\$16.39	\$49.18	\$32.79		SSgt	\$7.57	\$22.70	\$15.13
	Amn (2)	\$22.53	\$67.58	\$45.06		TSgt	\$8.72	\$26.16	\$17.44
	Totals	\$38.92	\$116.77	\$77.85		Totals	\$16.29	\$48.87	\$32.58
RAMPCO		Min	Max	Ave	L M Load		Min	Max	Ave
	Time	65.00	65.00	65.00		Time	5	5	5.00
	TSgt	\$18.90	\$18.90	\$18.90		SSgt	\$1.26	\$1.26	\$1.26
	Totals	\$18.90	\$18.90	\$18.90		Totals	\$1.26	\$1.26	\$1.26
PERSONNEL									
Personnel Process		Min	Max	Ave	Personnel Hold		Min	Max	Ave
	Time	5.00	30.00	17.50		Time	60	60	60.00
	Capt	\$2.18	\$13.06	\$7.62		SSgt	\$15.13	\$15.13	\$15.13
	MSgt	\$1.63	\$9.79	\$5.71		AMN	\$10.40	\$10.40	\$10.40
	SSgt (4)	\$5.04	\$30.27	\$17.66		Totals	\$25.53	\$25.53	\$25.53
	TSgt (2)	\$2.91	\$17.44	\$10.18					
	AMN (3)	\$2.60	\$15.60	\$9.10					
	Totals	\$14.36	\$86.16	\$50.26					

Prepare		Min	Max	Ave	Load		Min	Max	Ave
Personnel	Time	15.00	90.00	52.50	Aircraft	Time	100.00	125.00	112.50
	TSgt	\$4.36	\$26.16	\$15.26		TSgt (2)	\$58.14	\$72.68	65.41
	SSgt	\$3.78	\$22.70	\$13.24		SSgt (2)	\$50.45	\$63.06	56.75
	Totals	\$8.14	\$48.87	\$28.50		Amn (4)	\$69.32	\$86.65	77.98
						Totals	\$177.91	\$222.38	200.14
		Min	Max	Ave					
AS-IS Cost		\$2,370.69	\$5,131.15	\$3,750.92					

Table 20. Performance Cost for the As-Is Deployment Process

Table 21 represents the To-Be CONOP savings. This saving was computing based on the performance cost of those activities removed or adjusted in going from the As-Is to the To-Be processes due to process changes or the application of automation. Thus subtracting the cost totals in Table 21 from the As-Is cost totals produces the predicted cost of the To-Be process definition.

For the cargo processing, six activities were eliminated, namely the pre-in-check, CDF in-check, RAMPCO check, marshalling, Load Master Check, and the Load Master preparation for loading. For each of these eliminated activities, the time, individual cost, and total cost were computed. Similarly for personnel, the personnel processing through the PDF was eliminated along with personnel holding requirement. As-Is processing activities reduced due to automation include the coordination of force requirements, the generation of the DSOE, the preparation of personnel, and the monitoring in the DCC. The time and cost for these reduced efforts were computed.

Within the To-Be process, the CDF in-check will not be totally removed, but rather minimized. In the first part of the table, the As-Is CDF in-check was totally removed. To represent the To-Be CONOP, the last part of Table 21 represents the cost of the reduced CDF in-check to remain a part of the deployment process.

Thus the totals at the bottom of the table represent the costs savings based on changes made to As-Is process so as to produce the To-Be process. These numbers are presented in Table 18 for summary.

CARGO (Positions Eliminated)									
Pre In-check		Min	Max	Ave	Marshal		Min	Max	Ave
	TIME	65.00	195.00	130.00	TIME		40	195	117.50
	TSgt	\$18.90	\$56.69	\$37.79		SSgt	\$10.09	\$49.18	\$29.64
	SSgt	\$16.39	\$49.18	\$32.79		Amn	\$6.93	\$33.79	\$20.36
	Totals	\$35.29	\$105.88	\$70.58		Totals	\$17.02	\$82.98	\$50.00
CDF In-check		Min	Max	Ave	Load Master Check		Min	Max	Ave
	TIME	65.00	195.00	130.00		TIME	30	90	60.00
	SSgt	\$16.39	\$49.18	\$32.79		SSgt	\$7.57	\$22.70	\$15.13
	Amn (2)	\$22.53	\$67.58	\$45.06		TSgt	\$8.72	\$26.16	\$17.44
	Totals	\$38.92	\$116.77	\$77.85		Totals	\$16.29	\$48.87	\$32.58
RAMPCO		Min	Max	Ave	Load Master Load		Min	Max	Ave
	TIME	65.00	65.00	65.00		TIME	5	5	5.00
	TSgt	\$18.90	\$18.90	\$18.90		SSgt	\$1.26	\$1.26	\$1.26
	Totals	\$18.90	\$18.90	\$18.90		Totals	\$1.26	\$1.26	\$1.26
PERSONNEL (Positions Eliminated)									
Personnel Process		Min	Max	Ave	Personnel Hold		Min	Max	Ave
	TIME	5.00	30.00	17.50		TIME	60	60	60.00
	Capt	\$2.18	\$13.06	\$7.62		SSgt	\$15.13	\$15.13	\$15.13
	MSgt	\$1.63	\$9.79	\$5.71		AMN	\$10.40	\$10.40	\$10.40
	SSgt (4)	\$5.04	\$30.27	\$17.66		Totals	\$25.53	\$25.53	\$25.53
	TSgt (2)	\$2.91	\$17.44	\$10.18					
	AMN (3)	\$2.60	\$15.60	\$9.10					
	Totals	\$14.36	\$86.16	\$50.26					
Positions Implementing Automation for cost savings									
Coordinate Force		Min	Max	Ave	Generate DSOE		Min	Max	Ave
Req's	TIME	40.00	55.00	47.50		TIME	15	60	37.50
	TSgt (3)	\$34.89	\$47.97	\$41.43		Capt	\$6.53	\$26.13	\$16.33
	MSgt (3)	\$39.17	\$53.85	\$46.51		Totals	\$6.53	\$26.13	\$16.33
	Capt	\$17.42	\$23.95	\$20.69					
	Totals	\$91.47	\$125.78	\$108.62					
Prepare Personnel		Min	Max	Ave					
	TIME	5.00	40.00	22.50					
	TSgt	\$1.45	\$11.63	\$6.54					
	SSgt	\$1.26	\$10.09	\$5.68					
	Totals	\$2.71	\$21.72	\$12.22					
DCC Monitor		Min	Max	Ave					
	TIME	340.00	850.00	595.00					
	Capt	\$148.07	\$370.17	\$259.12					
	1st Lt	\$120.49	\$301.21	\$210.85					
	MSgt (3)	\$137.07	\$337.30	\$237.61					
	TSgt (2)	\$197.69	\$494.22	\$345.96					

	Ann (3)	\$176.76	\$441.89	\$309.33						
	Totals	\$975.92	\$2,439.80	\$1,707.86						
Position adjusted in To-Be Model (Additional cost)										
In-check QA		Min	Max	Ave						
	TIME	5.00	20.00	12.50						
	TSgt	\$1.45	\$5.81	\$3.63						
	SSgt	\$1.26	\$5.04	\$3.15						
	Totals	\$2.71	\$10.86	\$6.79						
TOTALS		Min	Max	Ave						
To-Be Cost Savings		\$1,241.50	\$3,088.91	\$2,165.20						

Table 21. Performance Cost Savings for the To-Be Deployment Process

3.3.5 CONOP Verification

The To-Be validations focused on gaining acceptance and additional improvement suggestions from the stakeholders. Selected To-Be validation sites included a representative of various mission types and the bases supporting those types of missions.

At each site, the two-day validation process followed basically the same agenda. On the morning of the first day, the LOG-AID Government Program Manager presented an introductory overview to the Wing Commander, or his representative, and any of his invited staff members. Individual sessions followed over the next two days, with each session lasting approximately three hours. The pre-identified attendees were grouped according to their deployment process responsibilities, allowing for flexibility to attend a different session to accommodate their work schedules. These groupings of similar personnel was intended to encouraged discussions and focus on specific areas of the process while minimizing conflicts that may exists among the various areas of responsibilities. As experience was gained regarding the completeness and acceptance of the DPIs and CONOP, and the anticipated conflicts were not apparent, the separation of personnel by deployment responsibilities was removed and more integrated groups formed. Table 22 summarizes the scope and magnitude of the To-Be verification effort.

Because of the acceptance received at the various bases regarding the wing level deployment process strengths, weaknesses, and the identified DPIs, the validity and completeness of the LOG-AID analysis was believed to be addressing the needs and goals of the users or stakeholders. This does not mean, however, that the session were quiet and without comments.

The stakeholders were very open with their comments but in general all comments were in agreement with the information presented.

SITES/COMINAND	STAKEHOLDERS	ATTENDEES
<ul style="list-style-type: none"> • Wright Patterson AFB/ AFMC • Indiana ANG • (Ft. Wayne)/ ANG • Charleston AFB/ AMC • WWDPC/ HQ USAF • McGuire AFB/ AMC • Elmendorf AFB/ PACAF • Mt. Home AFB/ ACC • Holloman AFB/ ACC • Osan/ PACAF • Kadena/ PACAF • Hickam AFB/ PACAF • Aviano AB/ USAFE • Ramstein AB/ USAFE 	<ul style="list-style-type: none"> • Wing Commander • IDO/DCC • UDM • Load Planner • Manpower & Personnel • PDF • CDF/In-check • On-Base Transportation • READY • Marshaler/RAMPCO • Load Master/TRANSCOM • Reception Site 	<ul style="list-style-type: none"> • Command & Control • (60) • Planning • (94) • Cargo Handlers/Transportation • (37) • Manpower & Personnel Functions • (23) • Unit Functions • (111) <p>325 TOTAL STAKEHOLDERS INVOLVED</p>

Table 22. Sites and Stakeholders involved in the To-Be Verification Process

The verification sessions were set up to maximize the attendee involvement, with the goal of ensuring their understanding of program intent and concepts. While the presentation approach varied slightly over the course of the verifications, the sessions started with a request to the attendees to list for themselves the strengths, weaknesses, and improvement ideas they have about the process.

Each category (information systems, process, training, policy, and personnel attitude) of strengths, weaknesses, and DPIs were presented followed by an open session during which attendees were encouraged to reflect and comment on those items. Following these discussions was the discussion and simulation demonstration for how the To-Be process and its comparison to the As-Is process performance. Again, this discussion and demonstration ended with an open discussion to encourage involvement and ideas. The attendees were then asked to review the process strengths, weaknesses, and improvement ideas to verify if all their issues had been addressed. Each session ended with an explanation of the DPI process criteria and their ranking of those criteria.

In addition to each individual ranking the DPI process criteria, the IDO completed the information for the deployment metrics.

4. RESULTS

4.1 Deployment Timeline Comparison

Figure 13 presents a comparison of the deployment timelines as the process exists today, as the process is planned for AEF, and for the proposed process towards the year 2010. Currently there exists a level of preparedness for both personnel and cargo prior to the receipt of the warning order. During the planned 15 days from the warning order to deployment order, crisis action planning and preparation increases. Following receipt of the deployment order, 6 hours of crisis action planning transfers into 16 hours of personnel and cargo processing, terminating with the deploying resources being loading on the conveyances for movement to the reception site. Three days after deployment order receipt, the force are in place at the deployed location and ready to begin mission operations with sufficient resource to support a 30-day effort before sustainment resources are required.

The reduction in the AEF timeline results from the increases effort involved in maintaining unit preparation prior to the receipt of the warning order. During this time period, designated units prepare for deployment as part of their everyday work operation. For example, at the end of every work day, aircraft are loaded and pallets built to the point they are ready for deployment processing. This daily preparation allows for the reduced deployment timeline once the orders arrive.

In the year 2010, the time between warning order and deployment order will decrease to one day, with sortie generation beginning 42 hours after warning order receipt. To satisfy this demanding timeline requires that resource preparedness be improved along with a decreased timeline for both planning and processing. In addition, the sustainment resources must vary to satisfy the mission duration requirements that could range anywhere from 3 to 30 days after deployment order receipt.

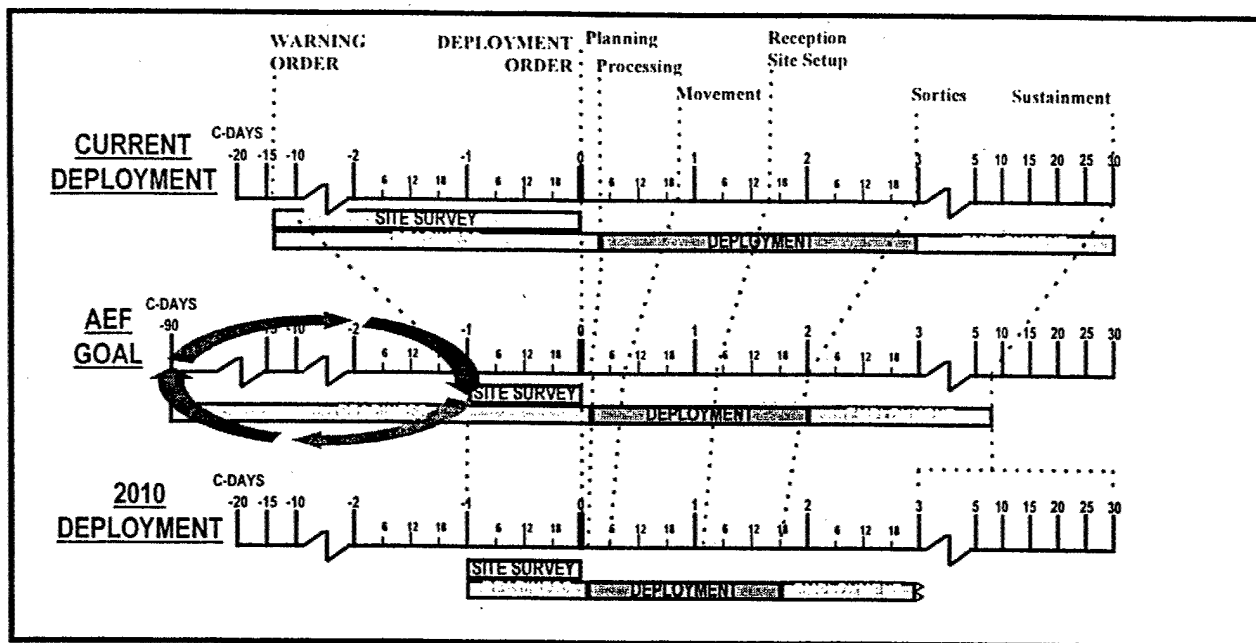


Figure 13. Deployment 2010 Process will Reduce the Time to Sortie Initiation

To meet these challenges, planners must apply methods that facilitate the tailoring of resources for a specific scenario. In some cases, meeting operational objectives may incur unacceptable levels of risks; therefore, planners must assess the risks of various support strategies and communicate those risks to operational planners in operational terms. Logisticians need to provide the best guidance to operational planners concerning any risks in logistics support of mission requirements.

4.2 Program Risks

Performance of a process improvement effort such as LOG-AID requires a team of people for to accomplish the identification, access, collection, integration, and analysis of large quantities of data and information to ensure the development of realistic and truly beneficial improvement concepts. The level of program success relies heavily on the team's ability to accomplish this information intensive tasks. To help ensure the success of the LOG-AID program, a risk avoidance and mitigation analysis was perform. The goal of this analysis was to identify the critical aspects of the process, that if not addressed correctly, would significantly decrease the benefits received from the program. For each of these risks, one or more steps or approaches were established which would eliminate or reduce the potential that the problem would occur and

minimize program success. Table 23 summarizes the list risks and corresponding avoidance/mitigation steps identified for LOG-AID.

RISK	AVOIDANCE/MITIGATION
Potential for an Ineffective Program	<ul style="list-style-type: none"> • Develop a common program understanding <ul style="list-style-type: none"> ⇒ Develop a strawman model ⇒ Verify with in-house functional experts ⇒ Use walk-throughs to coordinate the LOG-AID team's understanding ⇒ Perform preliminary site visits to local bases • Support the Department of Defense (DoD)/AF strategic vision <ul style="list-style-type: none"> ⇒ Identify data critical to DoD/AF strategic visions ⇒ Develop interaction with related initiatives ⇒ Maintain user involvement ⇒ Collect data focused around deployment metrics ⇒ Ensure traceability of CONOP to strategic visions
Failure to produce clearly defined objectives as to what the improved process is to accomplished	<ul style="list-style-type: none"> • Baseline objectives have been well established by the LOG-AID program. • Development of criteria and metrics that address objectives
<p>Failure to get a solid understanding of process that includes the development of good analysis tools</p> <p>Risk of "non-truths" from person being interviewed.</p> <p>Addressing symptoms, not problems</p>	<ul style="list-style-type: none"> • Interviewed user personnel across all aspects of base-level deployment and at different bases • Correlation of information across interviews • Use of in-house Subject Matter Experts (SMEs) • Application of a systematic analysis methodology
Failure to integrate large quantities of information from varied locations and sources	<ul style="list-style-type: none"> • Effectively identify the data to be collected • Applied a structured data collection and recording approach that facilitates access and analysis. • Used a modeling approach that supports the integration and verification of the collected data. • Maintained traceability between the data and their sources • Effectively document, access, and trace the data.
Failure to realize that a DPI is negatively impacting the process beyond base level.	<ul style="list-style-type: none"> • Interviewing other levels than the base • Reviewing documentation than is beyond the base level • Developing A-I diagram to define the functional environment surrounding the functional scope defined for the analysis.
Failure to Establish User Buy-In because the DPIs lack practicality and do not address the real user problems	<ul style="list-style-type: none"> • Establish user involvement early-on <ul style="list-style-type: none"> ⇒ Identify user benefits for the LOG-AID program ⇒ Demonstrate up-front understanding of deployment ⇒ Prepare thoroughly for data collection ⇒ Make effective use of users' time ⇒ Address process issues identify by the users • Maintain user involvement throughout the program <ul style="list-style-type: none"> ⇒ Coordinate data collection and validation trips with users ⇒ Provide users the opportunity to review intermediate materials and ideas
Failure of the modeling and simulation analysis to replicate exact real-world situations	<ul style="list-style-type: none"> • Direct the analysis towards a sensitivity analysis that identifies problems inherent in the process concept rather than at specific site implementations
Failure to focus on the DPI providing maximum benefit	<ul style="list-style-type: none"> • Application of the House of Quality-type analysis based on criteria and metrics developed through user involvement to ensure a practical and operational solution.

Table 23. Summary List of LOG-AID Risks and Avoidance/Mitigation Approaches

4.3 Resulting DPI List and Their Ranking Order

An analysis of the As-Is deployment process provided the basis for developing the 2010 deployment concept of operation. This analysis established a detailed understanding of the basis process requirements along with a set of strengths and weaknesses inherent in the process.

Grouping these strengths and weaknesses with respect to Information Systems, Process, Policies, Training, and Personal Attitude provided the foundation for developing DPIs that built on the strengths and corrected or minimized the weaknesses.

From an analysis perspective, each DPI provided improvement benefits to the wing-level deployment process. The true importance or value of each DPI, however, relates directly to the benefit realized by the stakeholders, with the stakeholders being those performing the deployment process and those being deployed.

Table 24 summarizes the DPIs developed through the LOG-AID program along with their computed ranking, using "1" as the highest priority. A complete list of strengths, weaknesses, and resulting DPIs is presented in Appendix E. A complete discussion of the ranking process is presented in Section 4.3.

CATEGORY	DPIs	RANK
Information System	<ul style="list-style-type: none"> Implement a highly integrated task-receipt-to-manifest information system. 	1
Process	<ul style="list-style-type: none"> Maximize production and minimize inspection activities. 	2
	<ul style="list-style-type: none"> Capitalize on similarities between cargo and personnel 	11
	<ul style="list-style-type: none"> Control tasking receipts into the base 	15
	<ul style="list-style-type: none"> Adjust the responsibilities and improve the integration of units, Manpower, and Personnel. 	3
	<ul style="list-style-type: none"> Collect deployment process status and effectiveness information using passive methods. 	12
	<ul style="list-style-type: none"> Better define the objective and criteria for UTC tailoring. 	18
	<ul style="list-style-type: none"> Reduce the number of coverage days included within the initial deployment. 	17
	<ul style="list-style-type: none"> Improve in-transit visibility. 	13
Policies	<ul style="list-style-type: none"> Refine the Air Force Instructions (AFIs) as necessary to best guide the deployment process. 	7
	<ul style="list-style-type: none"> Develop individual deployment guides for each deployment position. 	9
	<ul style="list-style-type: none"> Provide the UDM capability to produce more deployment ready personnel and cargo. 	10
Training	<ul style="list-style-type: none"> Apply real-world training characteristics to exercises. 	8
	<ul style="list-style-type: none"> Maximize the training benefits. 	4
	<ul style="list-style-type: none"> Include total process training. 	6
	<ul style="list-style-type: none"> Incorporate a training and efficiency evaluation capability into the system provided to the various personnel associated with the deployment process. 	5
Personnel Attitude	<ul style="list-style-type: none"> Develop a process to encourage augmentees to participate in deployments. 	14
	<ul style="list-style-type: none"> Develop a process to encourage personnel to be committed to real world contingencies to the same level as exercises. 	16

Table 24. A Summarized DPI List and their User-Designated Rankings

5. IMPLEMENTATION

5.1 CONOP Implementation Approach

As describe previously, the ranking of the DPIs represent their projected relative benefit to stakeholders, thus providing a guide as to the implementation order of those DPIs. In addition to the ranking, identifying and analyzing the individual actions necessary to implement the DPIs provides insight into the sequencing necessary to prevent the duplication of actions when implementing multiple DPIs. This process produces the most effective way of implementing the ranked DPIs. Figure 14 illustrates the transition from DPIs into implementation actions, the grouping of actions into phased, and the organization of actions within phased to form initiatives for implementation and testing.

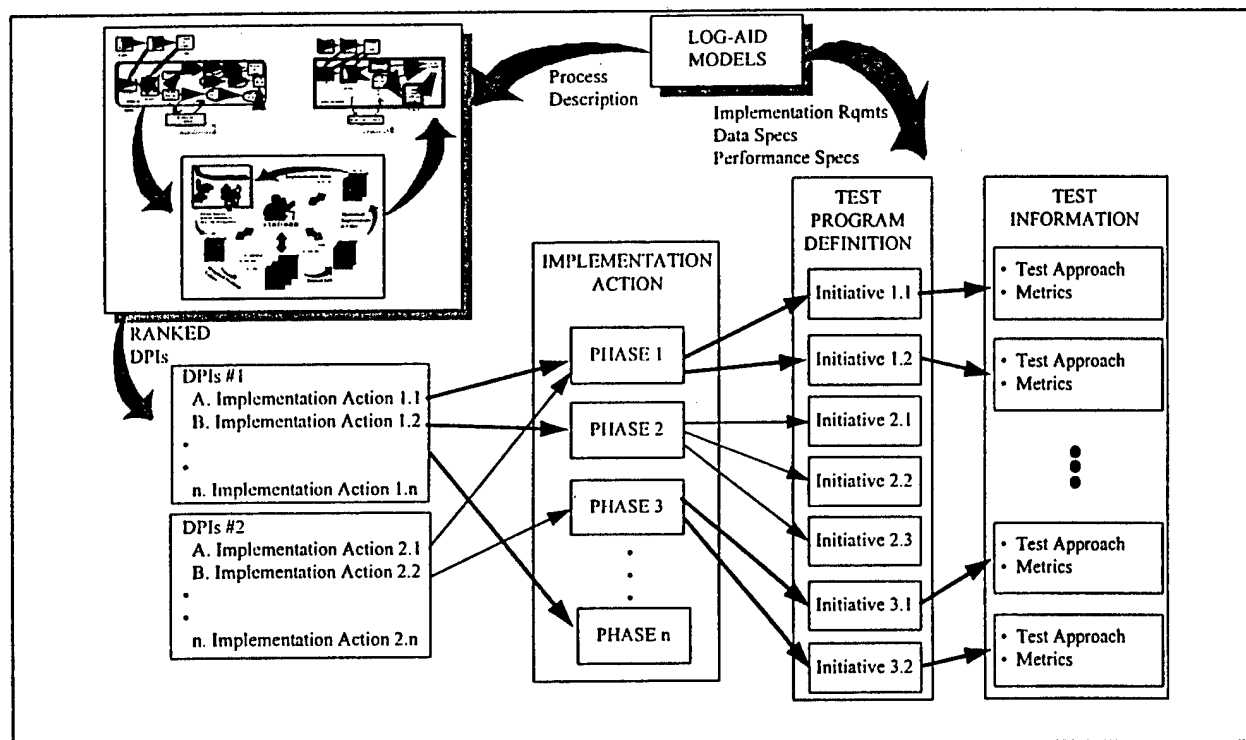


Figure 14. DPI Implementation Approach

The set of As-Is models provided the foundation for documenting, understanding, and analyzing the current wing-level deployment process. This As-Is process analysis produced DPIs grouped into the five categories of information systems, process, training, policies, and personnel attitude. The importance or value of these DPIs was computed by mapping them to the criteria used by the users to determine the effectiveness and success of a deployment operation.

Action items associated to each DPI specified the steps necessary to implement the DPIs. Due to various factors such as time, priority, and sequencing considerations, the Implementation Actions were assigned to phases, thus defining a time frame for completing the Implementation Action. The grouping of Implementation Actions into the Testing phases helped identify implementation actions linked to different DPIs. The grouping of similar or logically related Implementation Actions within phases produced Initiatives, with any one phase producing one or more Initiatives.

Finally, to each Initiative was assigned a Test Approach and Metrics for measuring the impact of the initiative on the deployment process. The implementation test plan results from the organization of the initiatives in a manner that maximizes the use of all resources, especially time and personnel. Various initiatives will require similar setup, interface, and training requirements. Organizing these initiatives into a single or related test reduces the effort required to setup and prepare for the tests, thus generating more results with less effort.

Throughout this process, the linkage of Implementation Action back to its DPI was retained, thus guiding the overall assignment process so as to ensure the higher ranked DPIs receive priority for implementation.

5.2 Continued Deployment Process Improvement

As a wing-level Deployment Process Improvement program with a defined start and stop times, the LOG-AID program established a baseline description of the current process via the As-Is models. From these models was developed the deployment Concept of Operation aimed at the year 2010. As illustrated in Figure 15, the year 2010 CONOP is not a final goal but rather an interim point in time with respect to the long-term deployment process improvements extending for unknown years into the future, with the Target To-Be process being the ultimate goal. Because the Target To-Be process represents an ever changing target comprised of operational goals and objectives for the undefined year of nnnn, that Target To-Be process will not be implemented. Rather, that Target To-Be process provides far reaching direction towards which to strive with improvement ideas.

The goal, therefore, is to establish a continuous process improvement plan that begins with the implementation of the 2010 CONOP for deployment, then continues the improvement development and implementation into the future along the evolutionary improvement path.

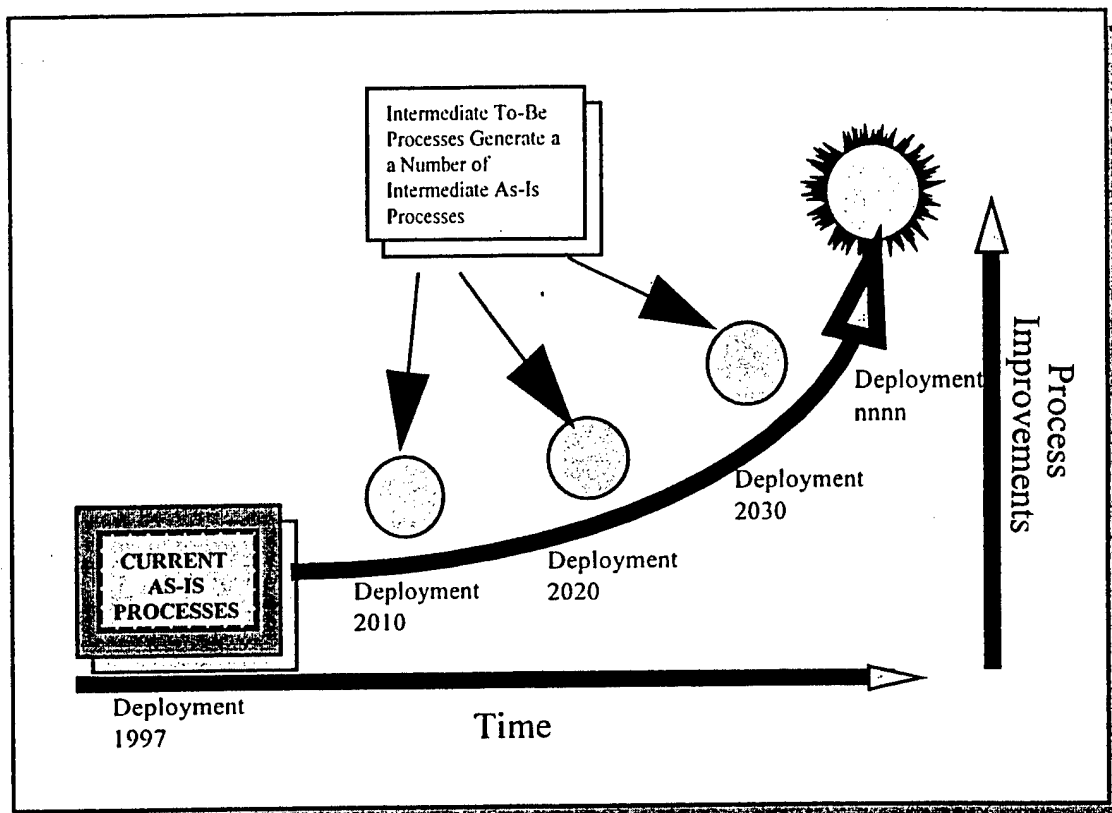


Figure 15. LOG-AID Starts an Evolutionary Process Improvement Effort

The completed LOG-AID program provides the foundation for implementing a continuous process improvement capability. The various To-Be models document the functional, data, and performance aspects of the process. Collecting selected deployment processing information and analyzing that information at regular intervals allows for identification of problem areas and those areas at which additional improvements would provide increased benefits. Adding the capability for users to document problems encountered and their ideas for process improvements provides an effective way of obtaining user involvement in the improvement process. In parallel with the process analysis, technology analysis would identify new and better ways of implementing the process. At the completion of each review and upgrade, updating the To-Be models and CONOP establishes them as the AS-IS process documentation and the foundation upon which the next improvement iteration would occur.

5.3 Site Evaluation Methodology

Current deployment capabilities vary significantly among the sites. Depending primarily on their level of deployment responsibility and funding, the site deployment capabilities range from relatively informal processing using minimal technologies such as Tydall AFB to elaborate processing lines supported by large quantities of technology such as Hurlburt Field. Because of the site variations, the impact of the 2010 CONOP will also vary among the sites.

Selecting a test site for the 2010 CONOP will therefore require an evaluation of potential sites. The goal will be to select a site providing a reasonable tradeoff between the easy of implementing portions of or the entire 2010 CONOP and the anticipated benefits realized from the implementation. Table 25 illustrates the integration and parameters for rating the sites. The complete methodology and analysis resides in the Field Test Plan.

PARAMETERS	Level of Automation and Integration	Level of Deployment Commitment	Level of a Formalized and Consistently Used Deployment Process	Willingness to Adjust Their Deployment Process	Location	Base Rating
SITES						
Ohio ANG (Springfield)						
Indiana ANG (Ft. Wayne)						
Wright Patterson AFB						
Langley AFB						
Eglin AFB						
Tydall AFB						
Charleston AFB						
Hurlburt Field						
Holloman AFB						
Mt. Home AFB						
McGuire AFB						
Ramstein AFB						
Spangdahlem AFB						
Shaw AFB						
Youngstown ARS						
Seymour Johnson AFB						
Randolph AFB						
Maxwell AFB						

Table 25. Site Evaluation Matrix

The parameters are describes as follows:

Level of Automation and Integration

The portion of the deployment process supported by computers and associated databases. If computers are used, the level to which they are linked so that information transfer occurs electronically rather than by manual entry into various systems.

Level of Deployment Commitment

A combination of the number of times deployments are exercised and the size of those deployments.

Level of a Formalized and Consistently Used Deployment Process

The amount of change existing among individual deployments at a specific site. Depending on the size of the deployment, a base may implement different processes. For example, if five or ten individuals along with one increment of non-hazardous materials are being deployed, the base may not establish either the CDF for PDF. If larger quantities are deployed, the deployment process will include CDF and PDF operations.

Willingness to Adjust Their Deployment Process

Deploying sites tend to possess a single personality presented by all levels of personnel at the site. Some site are very open and will to make changes, others feel their process successfully accomplishes their goals thus no benefits would result for significant changes, and other do not possess the resources in personnel and funding to support and changes.

Location

The distance the site is from WPAFB. The shorter the distance and the cost of travel the less expense required to implement and exercise the testing.

Determining and assigning a value to each site versus parameter interaction and summing those up across parameters by site provides a rating for each site. Those ratings thus prioritize the testing potential for the sites.

6. TECHNOLOGIES NEEDS

6.1 Technology Research

Having established the To-Be process in terms the activity requirements and specifications, the analysis focus turns to identifying technologies that effectively satisfy those processing requirements and specifications, and selecting those for implementing the wing-level To-Be deployment process. Striving for a year 2010 CONOP, the investigated technologies may already exist, may be under development or planned for development with anticipation fore their availability the 2010, or identified for research and development by 2010.

The technology research began with an analysis of the technologies being used to implement the current deployment process. A comparison between the To-Be activity requirements and the specifications, and the technologies used to perform the similar activity in the current process provided insight as to whether or not the current technology provided a potential implementation of the process activity. Expanding the search towards similar processes within the government and commercial work environments provided insights into the technologies being used. This portion of the search also brought insights into their technology areas being developed and marketed by the government and commercial operations, visionary ideas published in a variety of technical papers and reports, and suggestions by deployment experts. To help ensure an unbounded identification of potential technologies, a combined analysis of the To-Be models and the CONOP from a technology identification perspective identified the requirements and specifications for technology development research efforts.

The final selection of implementation technologies will not occur for most of the process until implementation begins close to 2010. Nearer term implementations, however, will begin on a test basis during the LOG-AID field test effort. During the field test, the DPIs will be implemented and testes as incremental initiatives. Planning for each initiative requires decisions for the implementation approach, which includes the possible use of technologies. However, since the field test focuses on the benefits provided by the improved process rather than the technologies to implement the process, the application and testing of the technologies will be a secondary effort, and no technology developments are planned just to support the field test.

Where potential technologies already exist and are available, those technologies will be unused in the field test as needed to test the process effectiveness. For example, the DPI addressing the tailoring of UTC items to support a tasked mission, the UTC-DT tool will be used to support the tailoring process. In comparison, the DPI directed at collecting deployment process status and effectiveness information using passive methods will not be tested using potential sensor technologies. Rather, the test will use individuals located and collecting the information expected from the sensor. Thus, the affect of the sensor will be realized without the implementation of the sensor technology. Through the field test, it is anticipated that additional requirements for the technologies will be identified beyond those realized from the model and process analysis.

6.2 Technology Transition

The technology transition process represents the major step of going from the identification of a new idea to the implementation and acceptance of that idea by users. Because of criticality of this step, the goal of the technology transition played a key role throughout the LOG-AID program. This technology transition started with data collection, and continued into the verification effort and the field testing phase. Developed during the LOG-AID program, the ASCPT provides the capability to continue deployment process refinement as well as the technology transition.

Significant effort went into understanding the wing-level deployment process, identifying its strengths and weaknesses, developing the DPIs, and generating the LOG-AID CONOP. During this requirements definition effort, many stakeholders played key roles in providing current process information and a sanity check as to the reality and practicality of the To-Be CONOP. Having established the CONOP, the focus of the effort now changes from one of CONOP development to one of demonstration, verification, and technology transition so as to successfully get the improvement concepts implemented and operational at the wing level.

As mentioned in the previous paragraph, this technology transition began as an integral part of the requirements definition phases. During this program phase, site visits and interactions with hundreds of stakeholders gained acceptance of the need for improvement to the wing level deployment process as well as acceptance for the To-Be deployment concept. In addition,

demonstrations of a few computerized tools being developed and identified as technologies for implementing the deployment process were demonstrated to the stakeholders and received acceptance.

The field test provides the next step towards accomplishing the technology transition. The field test will focus on quantifying the benefits received from improving the process and demonstrating those benefits to deployment personnel. Through the field test, users gain first-hand experience with the improved process and provide the opportunity for refinement comments and suggestions. This direct, hands-on involvement by users builds their process ownership, completing the necessary step of transforming users from foes to advocates.

Developed during the LOG-AID program, the ACSPTC provides the capability to continue the technology transition long after the official completion of the LOG-AID program. Developed as a facility to develop and test deployment technologies, the facility provides the capability for users to learn about the technologies prior to implementing them at their bases, to receive technology training, and to continue providing comments and suggestions for improving the wing-level deployment process.

Thus, the LOG-AID program established a solid technology transition structure starting at the very beginning of the process, continued throughout the program performance, and provides the capability to continue the technology far into the future.

7. CONCLUSION

Through the application of a structured, user-focused methodology, this in-depth analysis of the wing-level deployment process resulted in a deployment CONOP aimed at the year 2010. Realizing the year 2010 is but a waypoint into the future -- the LOG-AID analysis did not view the 2010 CONOP as the ultimate and necessarily end product. Rather, through the application of the methodology, LOG-AID established the foundation necessary for continued analysis and improvement of the wing-level deployment process well beyond the year 2010.

Establishing the 2010 CONOP came about through the collection, integration, and analysis of large quantities of data and information, resulting in improvement ideas and operational concepts widely accepted by the users. Information was collected from first-hand discussion with over

300 individuals located at 16 Air Force bases throughout the world. This data were from those directly responsible for the successful performance of the deployment process and from first-hand observations of the process. Additional deployment process information came from documentation that described and directed the process such as AFIs and base deployment plans, and previous studies directed at deployment.

The integration of this information into a set of As-Is models provided the analysis tools necessary to generate a set of DPIs providing the basis for developing the To-Be deployment concept description. The identified DPIs addressed all aspects of the deployment process to include information processing, resource processing, resource movement, augmentee training, policies for guiding and controlling the deployment process, and the attitudes of the augmentees performing the deployment process. Taking these DPIs and the resulting 2010 CONOP back to over 300 users for review, comments, and verification ensured the accuracy and completeness of the analysis.

While the primary focus of the LOG-AID program was to establish the 2010 CONOP, the LOG-AID program also satisfied the requirement of establishing a foundation for the continued improvement of the wing level deployment process beyond the year 2010. Providing the long-term improvement analysis capability came about by viewing the wing level deployment process from two perspectives -- process flow and process implementation. The process flow comprises the activities included in the process and the relationships existing among those activities. The process implementation perspective focuses on the technologies used to improve the process flow. The process flow perspective is the more stable perspective such that once developed, the streamlined process can remain in place for many years into the future. As such, implementation of the process at all deploying sites becomes a realistic and reasonable goal, providing an important commonality among bases.

With the continuing changes in technologies, the implementation perspective addresses a much more dynamic situation by providing the potential for improving deployment process performance through the insertion of new technologies. Thus, while the streamlined deployment process can remain consistent across sites, the implementation of the streamlined process can

vary among sites based to a great extent on their level of deployment responsibility and funding availability.

Because of the separated perspectives, the LOG-AID program not only identifies requirements for selecting technologies, it also identifies the opportunities for technology development. A number of these spin-off efforts have already begun, with more anticipated as new insights gained during the field test and future operations. The results of the LOG-AID program also provide an important baseline against which to evaluate new technology ideas and to determine the value of pursuing those ideas through acquisition or research.

Thus, the results of the LOG-AID program go well beyond the basic goals of defining process requirements. The results provide a solid foundation on which to transition the wing-level deployment process to 2010 and beyond and the effective measurement of those changes.

APPENDIX A

Acronym List

Acronym List

ACS	Agile Combat Support
ACSPTC	Agile Combat Support Process and Technology Center
AEF	Air Expeditionary Force
AF	Air Force
AFI	Air Force Instructions
AMX	Air Mobility Express
AOR	Area of Responsibility
AWO	Action Workout
BCAT	Beddown Capability Assessment Tool
BPR	Business Processing Engineering
CDF	Cargo Deployment Function
CINC	Commander-in-Chief
CONOP	Concept of Operation
DCC	Deployment Control Center
DeMS	Deployment Management System
DoD	Department of Defense
DPI	Deployment Process Improvement
DSOE	Deployment Schedule of Events
ELITE	Enterprise Life Integration Technology Engineering

HAZMAT	Hazardous Material
IDO	Installation Deployment Officer
IDS	Integrated Deployment System
JLP	JPT Logistics Planner
JOPES	Joint Operations Planning and Execution System
JPT	JFACC Planning Tool
LOG-AID	Logistics Analysis to Improve Deployment
LOGMOD	Logistics Module
MAJCOM	Major Command
MANPER	Manpower & Personnel Module
MHE	Materiel-Handling Equipment
O&M	Operations and Maintenance
OT&P	Operational Tasking and Priorities
PAX	Passenger
PDF	Personnel Deployment Function
QA	Quality Assurance
R&D	Research and Development
RAMPCO	Ramp Coordinator
READY	Resource Augmentation Duty
RSP	Readiness Spares Package

SME	Subject Matter Experts
SRA	Systems Research and Applications Corporation
STONS	Short Tons
TPFDD	Time-Phased Force Deployment Data
TRANSCOM	Transportation Command
UDM	Unit Deployment Manager
USAF	United States Air Force
UTC	Unit Type Code
UTC-DT	Unit Type Code - Development and Tailoring

APPENDIX B

LOG-AID AS-IS ACTIVITY MODEL

NODE LIST

DIAGRAMS AND TEXT

DATA GLOSSARY

MECHANISM GLOSSARY

LOG-AID AS-IS ACTIVITY MODEL

The LOG-AID As-Is activity model presented in this appendix is a hierarchical, functional representation of the activities performed within the wing-level deployment process. This representation includes the products generated by each activity, the inputs used to produce those outputs, the controls defining how the inputs are transformed into outputs, the mechanism performing the activities, and the product relationships among the activities. The model also includes a node list of all the activities in the model, a textual overview description of each diagram, and a glossary for the interrelationship arrows. Figure B-1 contains a quick reference to the IDEF₀ notation used to present the model.

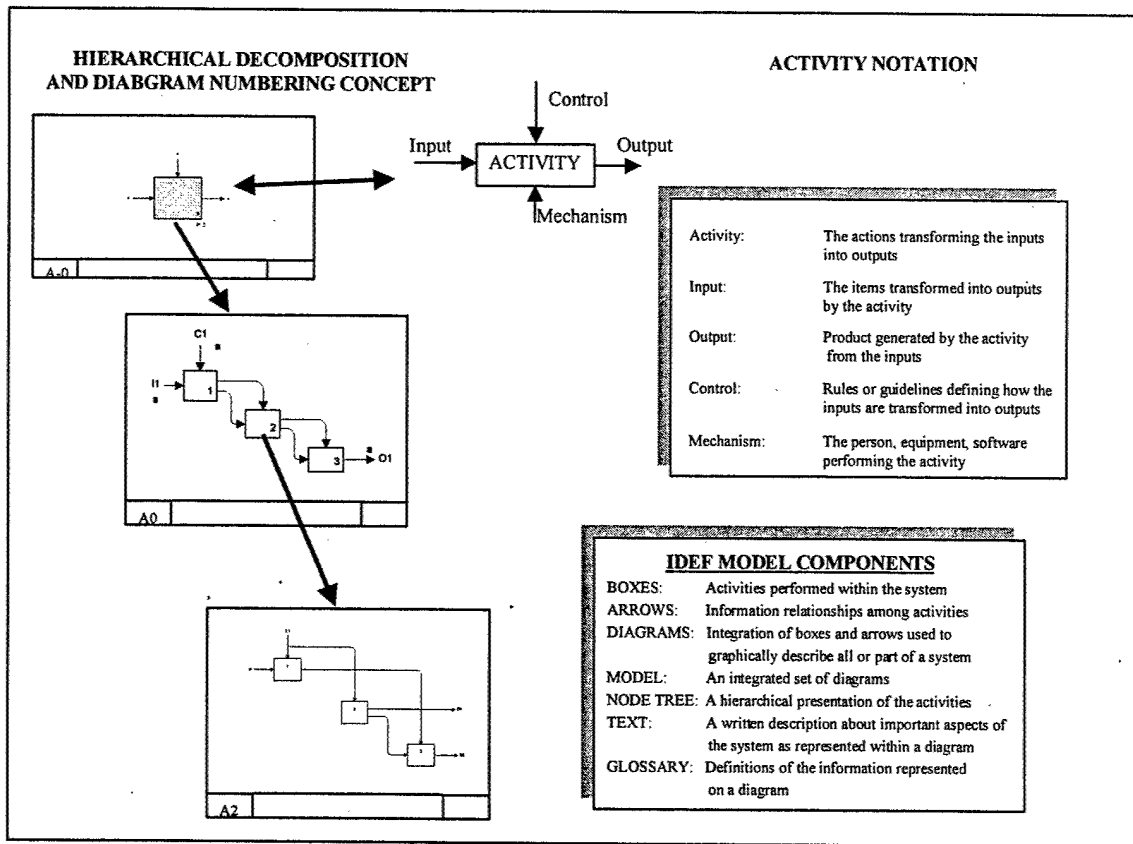


Figure B-1. IDEF0 Notation Overview

LOG-AID AS-IS ACTIVITY MODEL NODE LIST

- A-01 DEVELOP OPERATION PLAN (OPlan)
- A-0 DEPLOY FOR CONTINGENCY
 - A0 DEPLOY FOR CONTINGENCY (Context)
 - A1 PLAN SITE ADJUSTMENTS
 - A11 IDENTIFY BATTLE STAFF
 - A12 CONVENE BATTLE STAFF
 - A13 ANALYZE TASK
 - A14 DETERMINE BASE ALLOCATION
 - A2 EXECUTE ACTIVATION PROCESS
 - A21 DETERMINE UTC RQMT
 - A211 IDENTIFY TASKED UNIT
 - A212 IDENTIFY FRAGMENTED & NON-STD UTC
 - A213 LOCATE/ CORRELATE TAILORED UTC
 - A214 VERIFY/ OBTAIN STANDARD UTC DATA
 - A215 TAILOR UTC
 - A2151 IDENTIFY MISSION UNIQUE RQMTS
 - A2152 ADJUST DEPLOYING UTC ITEM LIST
 - A2153 TRANSLATE CLIMATE CONDITIONS
 - A2154 RELATE SITE & UTC RESOURCES
 - A2155 ADJUST BY CLIMATE RELATED ITEMS
 - A2156 ADJUST BY SHARED ITEMS
 - A22 ASSIGN NAMES TO UTC RQMTS
 - A221 SELECT A REQUIRED CAPABILITY
 - A222 ASSIGN A PERSON
 - A223 REVIEW PERSONS DEPLOYING STATUS
 - A224 ASSIGN AN EQUIPMENT ITEM
 - A225 REVIEW EQUIPMENT'S AVAILABILITY
 - A226 CHECK ON-BASE SUPPLY
 - A23 ESTABLISH THE DEPLOYMENT CAPABILITY
 - A231 DEFINE WORK SITES
 - A232 IDENTIFY DEPLOYMENT SEQUENCE
 - A233 DEFINE FACILITY RQMT
 - A234 IDENTIFY STAFFING RQMT
 - A235 IDENTIFY EQUIP RQMT
 - A24 COMPUTE CHALK
 - A241 OBTAIN UTC DETAIL
 - A242 PRIORITIZE/ ASSIGN CHALKS
 - A243 SEQUENCE INCREMENTS
 - A244 VALIDATE MOVEMENT FLOW
 - A25 COMPUTE THE DEPLOYING SCHEDULE
 - A251 SCHEDULE DEPLOYMENT SITE SET UP
 - A252 COMPUTE UTC DEPLOYMENT DURATION
 - A253 IDENTIFY KEY PROCESSING EVENTS
 - A254 COMPUTE CHALK TIMELINES
 - A255 COORDINATE CHALKS
 - A26 MONITOR/ CONTROL DEPLOYMENT
 - A3 SET UP DEPLOYMENT MACHINE
 - A31 SELECT AUGMENTEE
 - A32 PREPARE AUGMENTEE
 - A33 SET UP THE WORK CENTER
 - A34 ACCESS THE WORK CENTER INFO
 - A35 REPORT TO DCC
 - A4 COORDINATE TRANSPORTATION

- A41 ESTIMATE TRANSPORTATION LOAD
- A42 ARRANGE CONTRACT SUPPORT
- A43 COORDINATE TRANSPORT RQMT
- A44 ASSIGN CONVEYANCE
- A5 DEPLOY RESOURCES
 - A51 PREPARE PERSONNEL
 - A511 PREPARE UNIT PERSONNEL
 - A512 TRANSPORT PERSONNEL
 - A513 CONTROL MOBILITY BAGS
 - A514 PROCESS PERSONNEL
 - A5141 CHECK ELIGIBILITY
 - A5142 ISSUE ORDERS
 - A5143 CHECK ID CARD
 - A5144 UPDATE MEDICAL
 - A5145 PROVIDE CONSULTATION
 - A51451 UPDATE EMERGENCY DATA
 - A51452 PROVIDE LEGAL ASSISTANCE
 - A51453 PROVIDE RELIGIOUS SUPPORT
 - A51454 PROVIDE FINANCIAL SUPPORT
 - A51455 PROVIDE TRAVEL SUPPORT
 - A5146 BRIEF SITE SITUATIONS
 - A515 HOLD FOR TRANSPORT
- A52 PREPARE CARGO
 - A521 PREPARE CARGO INCREMENT
 - A5211 PREPARE INCREMENT ITEM
 - A52111 PREPARE FOR TRANSPORT
 - A52112 PLACE ON SCALE
 - A52113 DETERMINE ITEM SIZE
 - A52114 DOCUMENT INCREMENT INFO
 - A5212 PREPARE SHIPPERS DOC
 - A5213 BUILD INCREMENT
 - A52131 REVIEW A/C RESTRICTIONS
 - A52132 REVIEW HAZMAT RULES
 - A52133 PLACE NON-HAZMAT ITEMS
 - A52134 PLACE HAZMAT ITEMS
 - A52135 POSITION AND FASTEN RESTRAINTS
 - A5214 DETERMINE INCREMENT PROPERTIES
 - A52141 PLACE ON SCALE
 - A52142 DETERMINE INCREMENT SIZE
 - A52143 COMPUTE CARRYING POSITION
 - A5215 PRODUCE AND ATTACH THE PLACARD
 - A5216 NOTIFY THE DCC
- A522 TRANSPORT CARGO
- A523 IN-CHECK CARGO
 - A5231 INSPECT INCREMENT
 - A52311 VERIFY CHALK ASSIGNMENT
 - A52312 VISUALLY INSPECT
 - A52313 VERIFY HAZMAT PLACEMENT
 - A52314 VERIFY HAZMAT CERTIFICATION DOCS
 - A5232 DETERMINE INCREMENT PARAMETERS
 - A52321 DETERMINE WEIGHT
 - A52322 DETERMINE DIMENSIONS
 - A52323 DETERMINE CENTER OF BALANCE
 - A5233 COMPARE ACTUALS TO CONVEYANCE LIMITATIONS
 - A5234 ADJUST INCREMENT INFO
 - A5235 RELAY INCREMENT STATUS

- A524 ACCEPT INTO MARSHALED AREA
 - A5241 PLACE CARGO INTO CHALK OR HAZMAT AREA
 - A5242 INSPECT CARGO
 - A5243 REPORT STATUS
 - A5244 ANNOTATE LOAD PLAN
- A525 COMPUTE CHALK LOAD PLAN
- A53 PREPARE FOR TRANSPORT
 - A531 REVIEW LOAD PLAN
 - A532 POSITION & RECORD INCREMENTS
 - A533 POSITION & RECORD PERSONNEL
 - A534 PREPARE & PRESENT DOCUMENTS
- A-02 PERFORM CRISIS ACTION PLANNING
- A-03 BEDDOWN RESOURCES AT FINAL DESTINATION
- A-04 EVALUATE WORLDWIDESITUATION

**LOG-AID AS-IS ACTIVITY MODEL
DIAGRAMS WITH TEXT**

A-1 SCOPING THE CONTINGENCY DEPLOYMENT PROCESS

Ensuring a peaceful world environment requires an effective and efficient force deployment capability to locations anywhere in the world to perform war-fighting, peacekeeping, and humanitarian support operations. Deployment begins with the identification of a potential scenario at anticipated crisis points within the world and the development of operational and deployment plans to address the scenario. As necessary, the military units deploy to the designated sites.

Military leaders from each of the world theaters (PACOM [Pacific], EUCOM [Europe], SOUTHCAM [Southern], USACOM [Atlantic], and CENTCOM [Southwest Asia]) analyze the world environment and identify specific locations having a high probability of non-peaceful activities, and potential scenarios for each location. Using this information, Theater Commanders establish the mission requirements to address the scenarios. These mission requirements then assigned to the appropriate MAJCOMs drive long-range or deliberate deployment planning.

The deliberate planning, documented in an Operations Plan (OPLAN), identifies the scenarios and operational capabilities needed to address situations at designated locations throughout the world. While the deliberate planning anticipates world hot spots, the Perform Crisis Action Planning activity focuses by the identification of specific locations to which a deployment addresses a given operational scenario. However, because the specific hot spot could be either a real situation or an anticipated hot spot defined by deliberate planning or a potential hot spot selected for training purposes, the deployment functionality involved remains basically the same.

Wings and units are assigned UTC deployment responsibilities, thus designating the capabilities of their mission. A Limiting Factors (LIMFACS)/Shortfalls report documents any mission requirements not be satisfied by existing UTCs or by an assigned unit. This report initiates the modification of an existing UTC, an increased number of units assigned with the specific UTC, or the development and unit preparation of new UTCs.

In general, this activity refines, as appropriate, the information provided in deliberate tasking products, the order of arrival for each UTC capability at the reception site, and assigns complete or fragmented UTC requirements to available units. These refined requirements established by the MAJCOM assign deployment responsibilities to the units through the

Time-Phased Force Deployment Data (TPFDD). A unit self-evaluation documents the readiness of the units to satisfy a UTC and is delivered to the MAJCOM through Status of Resources and Training System (SORTS). Any operational factors or resource requirements not satisfied with available resources within a unit are documented as limiting factors or shortfalls (LIMFACS/Shortfalls). These LIMFACS/Shortfalls provide the information necessary to procure the necessary resources to satisfy mission requirements through additional tasking.

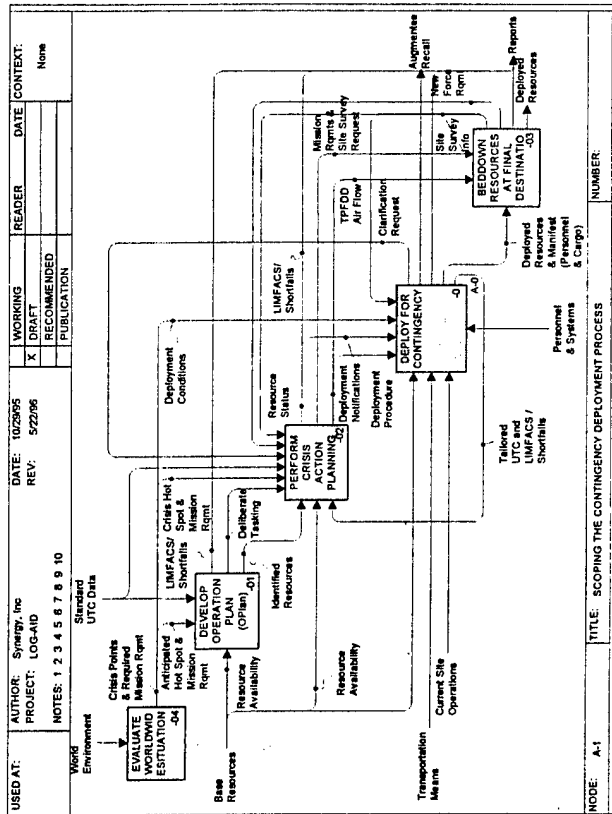
The focus of this As-Is model is the base level deployment. Based on the information gained through the development of this model, an expanded the breadth of this model integrated with deployment the operations phases of Readiness, Employment, Sustainment, and Redeployment. This C² Expanded Process Model documents the interrelationships among these phase provided the baseline process needed by the Air Force to successfully accomplish its mission. As the future missions are changing, this integrated set of phases will remain, but their implementation will vary to accommodate the future operational concepts such and global engagement and agile combat support.

[illegible]

A-0 DEPLOY FOR CONTINGENCY

Receipt of deployment notifications, consisting primarily of the TPFDD and the Letter of Intent (LOI) or Warning Order, Execute Order, etc. initiate the contingency deployment activity for a unit. These documents specify the deployment capabilities or UTCs requirements, the base responsible for their deployment, and their time frame for deployment. Calls from the base to the MAJCOM clarify any uncertainties with the tasks. The Base Deployment Plan provides deployment process guidance for each base. Unit specific guidelines extend the Base Deployment Plan information. Adjustments or tailoring of the UTC match the UTC resources to a number of deployment conditions such as weather, mission duration, and site survey information such as personnel housing capabilities. If a unit realizes its inability to satisfy the UTC deployment requirement, and cannot satisfy the requirement using other resources from the base, LIMFAC/Shortfall notifications inform the MAJCOM of the problem and they make the adjustment decisions.

With the deployment requirements specified, adjustments to the current base operations along with the inter- and intra-base transportation arrangements facilitate the deployment effort. With the deployment infrastructure in place, the collection, processing and loading of the base resources onto the conveyance proceeds. At specified points throughout the process, call-ins to the MAJCOM relay the deployment status. Following the deployment, the resources deployed are recorded by the units and deployment effectiveness information is brought together and reviewed by the personnel ranging from the battle staff to the UDMs.



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			PUBLICATION			

Deployment Procedure C2

Deployment Notifications C1

Base Resources I1

Transportation Means I2

Current Site Operations I3

C3 Deployment Conditions

C4 Site Survey Info

DEPLOY FOR CONTINGENCY (Context) 0

Reports O3

Augmentee Recall O2

Clarification Request O1

M1 Personnel & Systems A0

Deployed Resources & Manifest (Personnel & Cargo) O4

Tailored UTC and LIMFACS / Shortfalls O5

PURPOSE: To describe the Wing-Level deployment process from the time a deployment tasking is received until the deploying resources are aboard the conveyance and ready to leave the base.

VIEWPOINT: The individuals directly associated with the application of the wing deployment process. Specifically, the Installation Deployment Officer, Unit Deployment Manager, Personnel Deployment Function (PDF) Personnel, Cargo Deployment Function (CDF) Personnel, and Load Planners.

NODE: A-0	TITLE: DEPLOY FOR CONTINGENCY	NUMBER:
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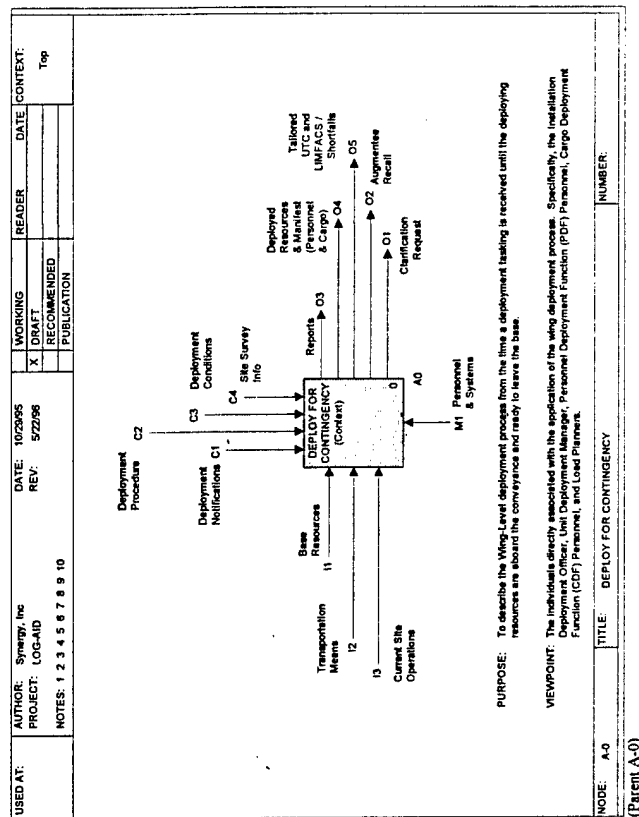
A0 DEPLOY FOR CONTINGENCY (Context)

Receipt of a tasking initiates the contingency deployment activity and usually consisting of the TPFDD, Letter of Instruction (LOI), Warning Order, and Execution Order. Included in the Execution Order are the Movement Flow specifying the assigned unit's departure and reception site arrival dates; cargo and personnel deployment preparation data; and the specifications for moving cargo and personnel. From the tasking, the installation commander identifies the deploying units, identifies the supporting units impacted by the deployment, and convenes a battle staff consisting of the lead individual from that organization. The battle staff analyzes the deployment tasking and adjusts the current operational characteristics of the base to support the deployment operational requirements. The Course of Action (COA) documents these battle staff special instructions.

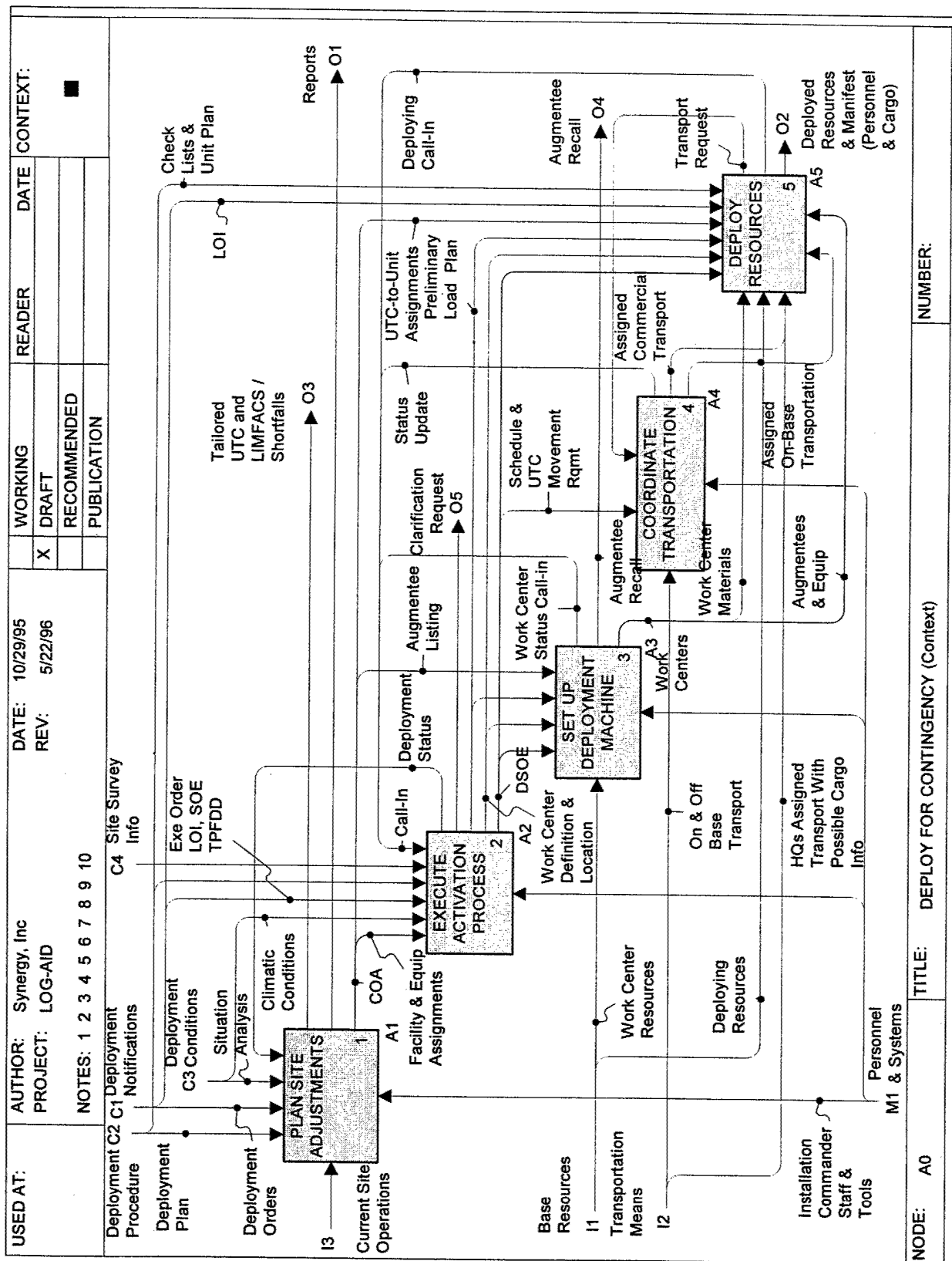
Tailoring UTC equipment and personnel requirements ensures the deployment resources effectively satisfy the mission requirements. The tailoring effort considers the environmental conditions at the reception site, the needs of the mission, and coordination with the reception site resources. The development of a Deployment Schedule of Events (DSOE) guides the total installation deployment effort. UTC and DSOE requirements drive the allocation of base resources and facilities to support the deployment while the selection of specific personnel Social Security Numbers (SSNs) and equipment Serial Numbers (SNs) identify the personnel and equipment for deployment.

With the base facilities allocated, and the processing activities and sequencing established, layout and implementation of the deployment work centers begin. The sequence or flow of the required deployment process significantly drives the work center layout. Selected through the Resource Augmentation Duty (READY) program, augmentees receive notifications of the planned deployment. Augmentees normally perform operational duties for the installation but perform deployment duties when necessary. Selected augmentees also operate the work centers. Documentation of their arrival at the work center and the verification of their deployment skill levels allow their assignment to appropriate deployment process activities. The overlaying of intra-base transportation requirements onto the deployment process and schedule completes the deployment preparation.

With all of the supporting structure established, the unit preparation begins for the personnel and equipment resources designed for deployment. From the unit, the resources process through the deployment



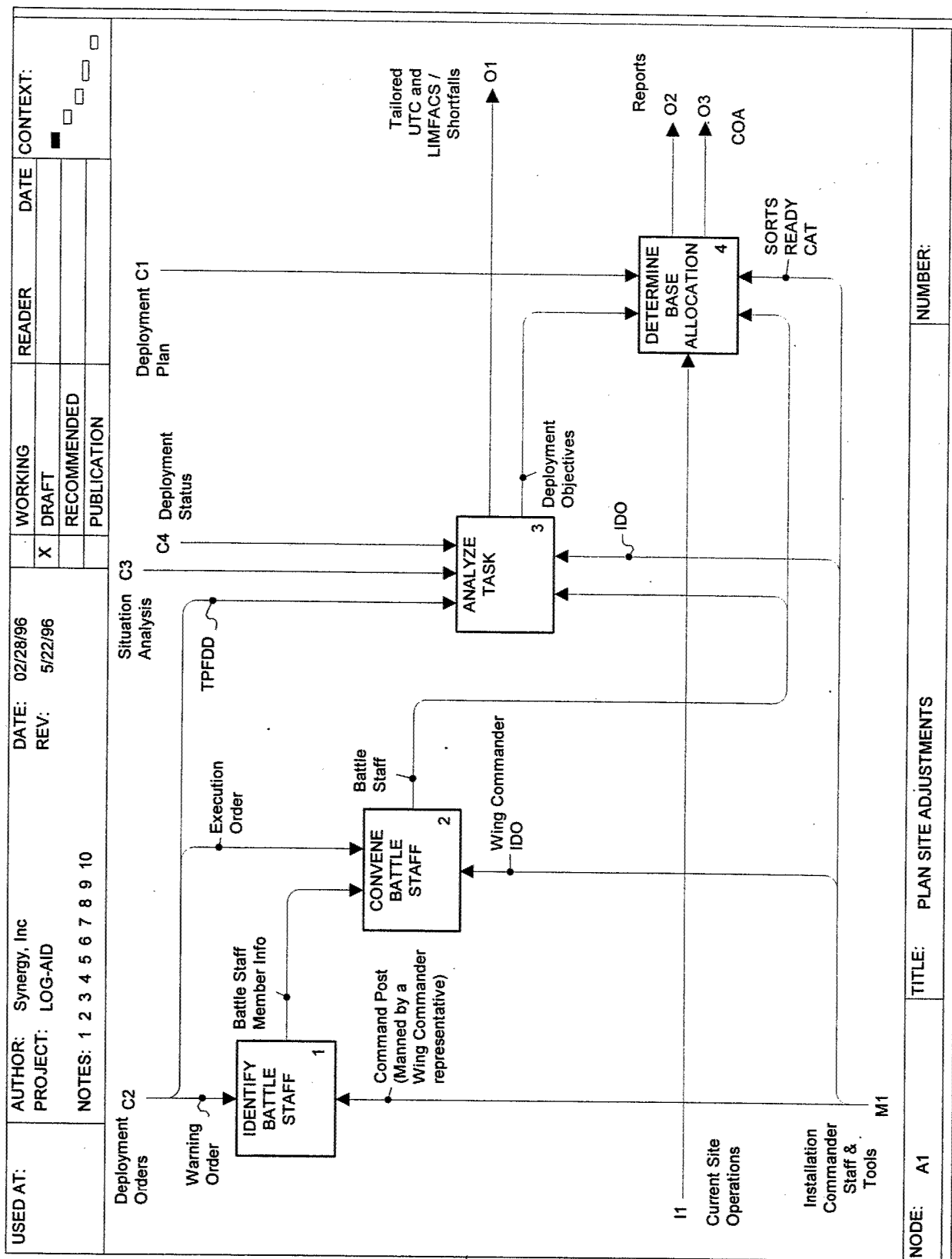
work centers in accordance with the DSOE. As the deployment progresses, status information collected with respect to the measurement points within DSOE and transmitted to the Deployment Control Center (DCC) provides an overall view of the deployment effort.



[illegible]

Battle Staff notification begins with the receipt of the execution order. Upon arrival in the Command Post, the battle staff evaluates the base deployment requirements as defined in the deployment order in conjunction with any political conditions, such as threat conditions, that may impact the success of the deployment. This analysis produces a set of deployment objectives. These objectives include such issues as size of the deployment effort, locations around the base necessary involved in supporting the deployment, and the security necessary to ensure the success of the deployment. This analysis may also produce a set of tailored UTCs, LIMFACS, and Shortfalls. UTC tailoring identifies personnel and cargo common among UTCs for possible sharing of resources to reduce the deployment footprint while maintaining the operational capability of the UTC.

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[illegible]

The Installation Deployment Officer (IDO) and the tasked Unit Deployment Managers (UDMs) analyze the tasking to determine each unit's deployment requirements. UTC Level 6 logistics detail data from LOGFOR-B or previously tailored UTCs from the LOGPLAN system provide the starting point for the analysis. The Level 6 data specifies the number of individuals by AFSC and the cargo by national stock number (NSN) and the quantity and measurements (length, width, height, weight, and center of balance) for each cargo element. Further tailoring of the UTC reflects experience gained from previous deployments.

Considering the deployment requirements, the IDO identifies the deployment work centers needed, and the processing flow through the work centers. Examples of the work centers include the Deployment Control Center (DCC), the Cargo Deployment Function (CDF), the Personnel Deployment Function (PDF), and the marshaling area.

The development of the Deployment Schedule of Events (DSOE) coordinates the development of each chalk and coordinates the unified development of all the chalks. This DSOE includes milestones for reporting deployment status to the DCC. Dissemination of the DSOE to UDMs and work centers ensures everyone knows the schedule. Upon

receipt of status call-ins, the IDO maps the actual status to the DSOE for the purpose of identifying and correcting problems before they negatively impact the success of the deployment process.

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graph TD
    C1[C1 Facility & Equip Assignments] --> A21[DETERMINE UTC RQMT 1]
    C2[C2 C3 Exe Order, LOI, SOE, TPFDD] --> A21
    C4[C4 Deployment Procedure] --> A21
    C5[Site Survey C5] --> A21
    C6[C6 Call-In] --> A21
    SOE[SOE] --> A21
    TPFDD[TPFDD] --> A21
    A21 --> A22[ASSIGN RESOURCES TO UTC RQMTS 2]
    A21 --> A23[ESTABLISH THE DEPLOYMENT CAPABILITY 3]
    A22 --> A23
    A23 --> A24[DEFINE CHALK 4]
    A24 --> A25[COMPUTE THE DEPLOYING SCHEDULE 5]
    A25 --> A26[MONITOR/CONTROL DEPLOYMENT 6]
    A26 --> DCC[DCC Staff]
    A26 --> O1[O1 Deployment Status]
    A26 --> O2[O2 Clarification Request]
    A26 --> O3[O3 Preliminary Load Plan]
    A26 --> O4[O4 Work Center Definition & Location]
    A26 --> O5[O5 D5OE]
    A26 --> O6[O6 Deployment Status]
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    A26 --> O144[O144 Deployment Status]
    A26 --> O145[O145 Deployment Status]
    A26 --> O146[O146 Deployment Status]
    A26 --> O147[O147 Deployment Status]
    A26 --> O148[O148 Deployment Status]
    A26 --> O149[O149 Deployment Status]
    A26 --> O150[O150 Deployment Status]
    A26 --> O151[O151 Deployment Status]
    A26 --> O152[O152 Deployment Status]
    A26 --> O153[O153
```

[illegible]

The IDO analyzes the TPFDD for any fragmented UTCs. Reviews of all orders and LOIs identify specific instructions or requirements to tailor the UTC. For example, a directive may state that chemical gear is not necessary, thus allowing for the tailoring out of all chemicals from the UTC. The directive may state the requirement for a specific medication prior to the deployment.

For non-fragged UTCs, a search of the LOGPLAN system identifies any UTC tailoring done during deliberate planning applicable to address the current mission requirements.

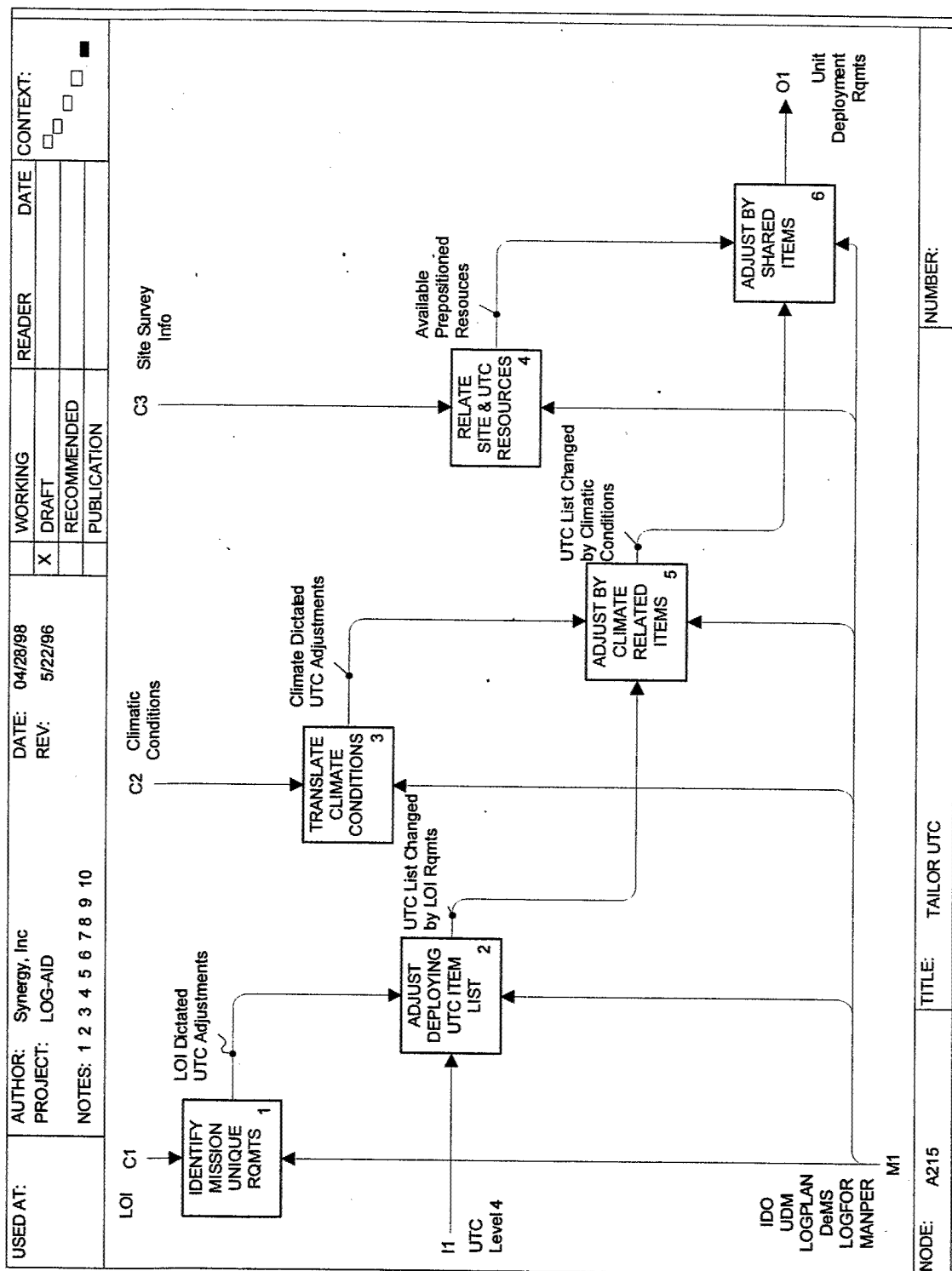
Using all the detailed personnel and equipment obtained, the IDO and UDM tailor the standard UTC for a number of considerations to meet the mission requirements. However, any tailored UTC found in LOGMOD provides a better starting point for the IDO and UDM to review and adjust

in order to satisfy the deployment requirement. An analysis of the site survey information determines the potential for tailoring of certain cargo from the UTC package because it already exists at the receiving base, or if additional cargo requirements exist because of the site's very austere location or the need for some additional requirements. The UDM's experience deploying this UTC to similar locations and mission requirements also plays an important role in tailoring the UTC.

Upon receipt of deployment directive information supplemental to TPFDD, the process begins for determining the actual UTC resources to be deployed. The supplemental information consists of the LOI, climatic conditions, and site survey information. Review of the LOI identifies resources to be removed from the UTC not needed for the targeted mission. Based on the adjustments identified through the LOI, the standard UTC list of contents is changed accordingly. In a similar manner, analysis of the mission site climatic conditions provide insights into the types of resources needed to operate within that type of environment. Based on these insights decisions are made about additional resources that can be removed from the UTC contents.

Finalizing the list of resources for deployment through the UTC involves an analysis of the resources already in existence at the deployment site. Gaining this site information is accomplished through a number of sources, with the information being somewhat uncertain. Thus, it remains the responsibility to the unit to decide how to tailor the UTC according.





[illegible]

A standard or tailored UTC includes a set of capability requirements stated in terms of the personnel skills and the equipment NSNs. The assigned deployment of a specific person or equipment satisfies a requirement within the UTC. For the personnel requirements, the UDM references the unit deployment plan containing a matrix designating primary, secondary, and tertiary assignments of personnel to the required skills. Beginning with the primary assignment, the UDM evaluates that person's deployment history and the training status with respect to the deployment criteria checklist. This evaluation determines the deployability of that person for the planned deployment timeframe.

If the primary person is not deployable, the UDM evaluates the secondary assignment and then the tertiary assignment if necessary. If one of the three persons is eligible, that person's social security number and name are assigned to the skill requirement within the UTC. If none of the three individuals are eligible, the UDM coordinates with other units on base in an attempt fill the requirement. If these approaches fail, a personnel shortfall message to the DCC initiates the actions to fill the requirement from another base.

Similarly, the assignment of an equipment serial number satisfies an equipment requirement stated in the UTC. If more than one piece of equipment could potentially satisfy the requirement, the UDM makes a selection designated by a serial number and based on the prioritized list in the Unit Deployment Plan. The UDM then reviews the operational status of the specified equipment during the timeframe defined within the DSOE to determine its potential for satisfying the requirement.

If no initially identified equipment satisfies the deployment requirement; the UDM evaluates all those NSNs or any substitutions for the NSN, to determine the unit's ability to satisfy the deployment requirement. If the requirement remains unsatisfied, a notification to Supply provides the next level of filling the requirement. If not available on base, an equipment shortage message relayed to the DCC initiates actions to fill the requirement from another base.

When completed, a matrix identifies the specific people and equipment to satisfy the skill and NSN requirements specified in the UTC.

USED AT:	AUTHOR: Synergy, Inc	DATE: 07/30/96	WORKING	READER	DATE	CONTEXT:
PROJECT: LOG-AID	REV: 5/22/96		DRAFT			
NOTES: 1 2 3 4 5 6 7 8 9 10			RECOMMENDED			
			PUBLICATION			


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graph TD
    C1[Tailored UTC Person/ Equip Rqmt] --> C2[Predefined Prioritized Assignments & Folders]
    C2 --> S1[SELECT A REQUIRED CAPABILITY 1]
    S1 --> S2[ASSIGN A PERSON 2]
    S2 --> S3[REVIEW PERSONS DEPLOYING STATUS 3]
    S3 --> S4[ASSIGN AN EQUIPMENT ITEM 4]
    S4 --> S5[REVIEW EQUIPMENT'S AVAILABILITY 5]
    S5 --> S6[CHECK ON-BASE SUPPLY 6]
    S6 --> S7[Base-Supplied Item]
    S7 --> S8[UDM SBSS]
    S8 --> S9[UDM DeMS]
    S9 --> S10[UDM Manpower]
    S10 --> S11[UDM DeMS MANPER Manpower]
    S11 --> S12[UDM Log Plan]
    S12 --> S13[UDM M1Flight Chiefs Functional Experts]
    S13 --> S14[UDM]
    S14 --> S15[Assigned Name & SSN]
    S15 --> S16[Assigned Serial #]
    S16 --> S17[Assigned Equip & Personnel/ Increment ID]
    S17 --> S18[Equipment Shortfall]
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Qualified individuals staff each work center. The work center staffing and training requirements reflect the work center type, the scope and quantity of the deployment requirements, and the available resources within the base. Each work center also requires equipment to function properly. These material and information requirements defined for and associated with each work center adjust to the size of the planned deployment.



USED AT:	AUTHOR: Synergy, Inc	DATE: 07/31/96	WORKING	READER	DATE	CONTEXT:
PROJECT: LOG-AID	REV: 5/22/96	X	DRAFT			
NOTES: 1 2 3 4 5 6 7 8 9 10			RECOMMENDED			
			PUBLICATION			

Unit Deployment Rqmts

UTC Level 2

Work Center Rqmt

C2 Deployment Plan

Std Space Rqmt

Process Flow

Std Staff Rqmt

Std Equip Rqmt

C3 Facility & Equipment Assignments

Facility & Equipment Assignments

Support Personnel Availability

Floor Plan/Sequence

Personnel & Training Rqmt

Material & Info Rqmt

Work Center Definition & Location


```

graph TD
    A[Unit Deployment Rqmts] --> B[DEFINE WORK SITES 1]
    B --> C[IDENTIFY DEPLOYMENT SEQUENCE 2]
    C --> D[DEFINE FACILITY RQMT 3]
    D --> E[IDENTIFY STAFFING RQMT 4]
    E --> F[IDENTIFY EQUIP RQMT 5]
    F --> G[Work Center Definition & Location]
    
    B --> H[Work Center Rqmt]
    C --> I[Std Space Rqmt]
    C --> J[Process Flow]
    D --> K[Std Staff Rqmt]
    D --> L[Std Equip Rqmt]
    E --> M[Facility & Equipment Assignments]
    E --> N[Support Personnel Availability]
    E --> O[Floor Plan/Sequence]
    F --> P[Personnel & Training Rqmt]
    F --> Q[Material & Info Rqmt]
    
```

IDO
Log Planner M1
CDF Chief

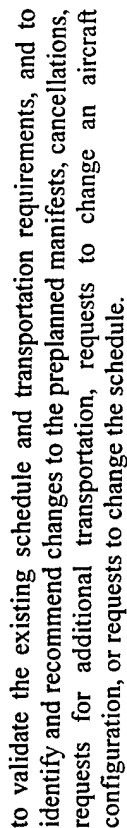
To effectively accomplish the deployment, the deploying personnel and cargo are assigned to a transport aircraft, referred to as a chalk, and organized in accordance to a loading layout or load plan for the each chalk. LOGMOD-B provides dimension and specification information for each increment. This information includes length, width, height, center of balance, hazardous materiel nomenclature, and shipment priority of the increments. MANPER-B provides passenger information. Standard weights are assumed for the passenger and their mobility and personal carry-on bags.

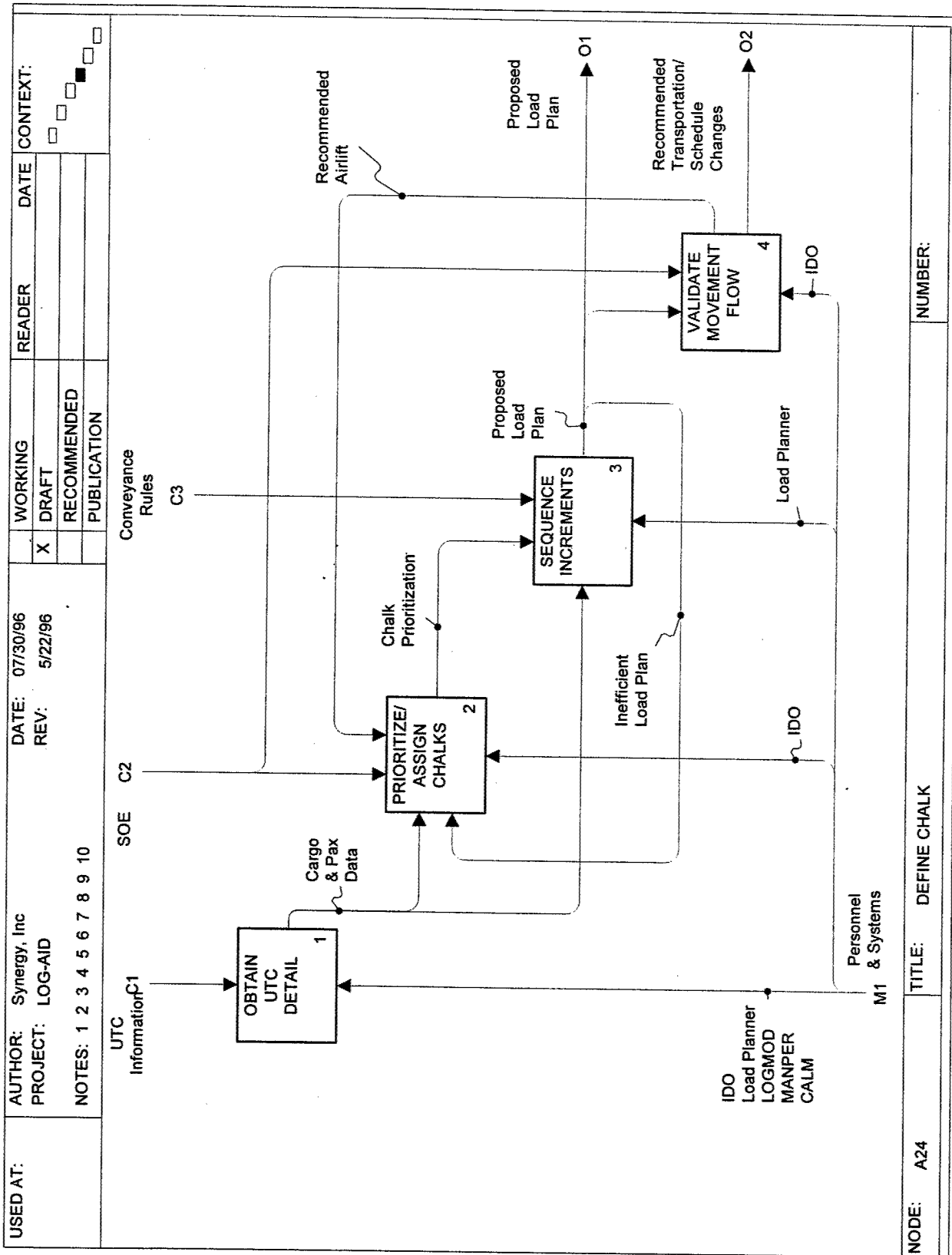
Prioritization of the chalks meets the current schedule and mission requirements. Since everything may not fit on the same airplane and everything cannot go first, the cargo is sequenced based on the priority flow defined in the DSOE and the UTC. Overlaying UTC increment and passenger listings onto the schedule assigns cargo and passengers to the prioritized chalks.

Development of the load plan sequencing assumes the aircraft is empty on arrival at the deploying location. Numerous rules control the actual placement of passengers and cargo on an aircraft, and placement of hazardous and sensitive materiel. For example, all loading of rolling stock occurs in front of pallets. No passenger seating occurs within 30 inches of the forward edge of a netted pallet, etc. The manifest and load plan identifies the passenger and cargo load placement for each aircraft and indicates the location of all hazardous and sensitive cargo.

An iterative process begins to ensure the minimum requirements for airlift and vehicles. Arrangement of increments makes full use of the available ACL (Allowable Cabin Load -- weight, cube or passenger seats) and vehicle load capacity. When situations occur that require cargo increments be moved from one chalk to another, coordination with the DCC ensures the transporting of the cargo remains at the same priority defined in the deployment requirements. The use of filler cargo improves load use or replaces increments bumped from a load. Filler cargo consists of lower priority increments or small items readily available for loading and measurable in, under, on or around other increments.

If the schedule did not identify a specific airflow, this process of developing the chalks helps identify the airlift requirements for the deployment. When optimized for maximum efficiency, the recommended airlift priority and sequencing are transmitted to the DCC and then submitted for higher level approval. This iterative process is also necessary

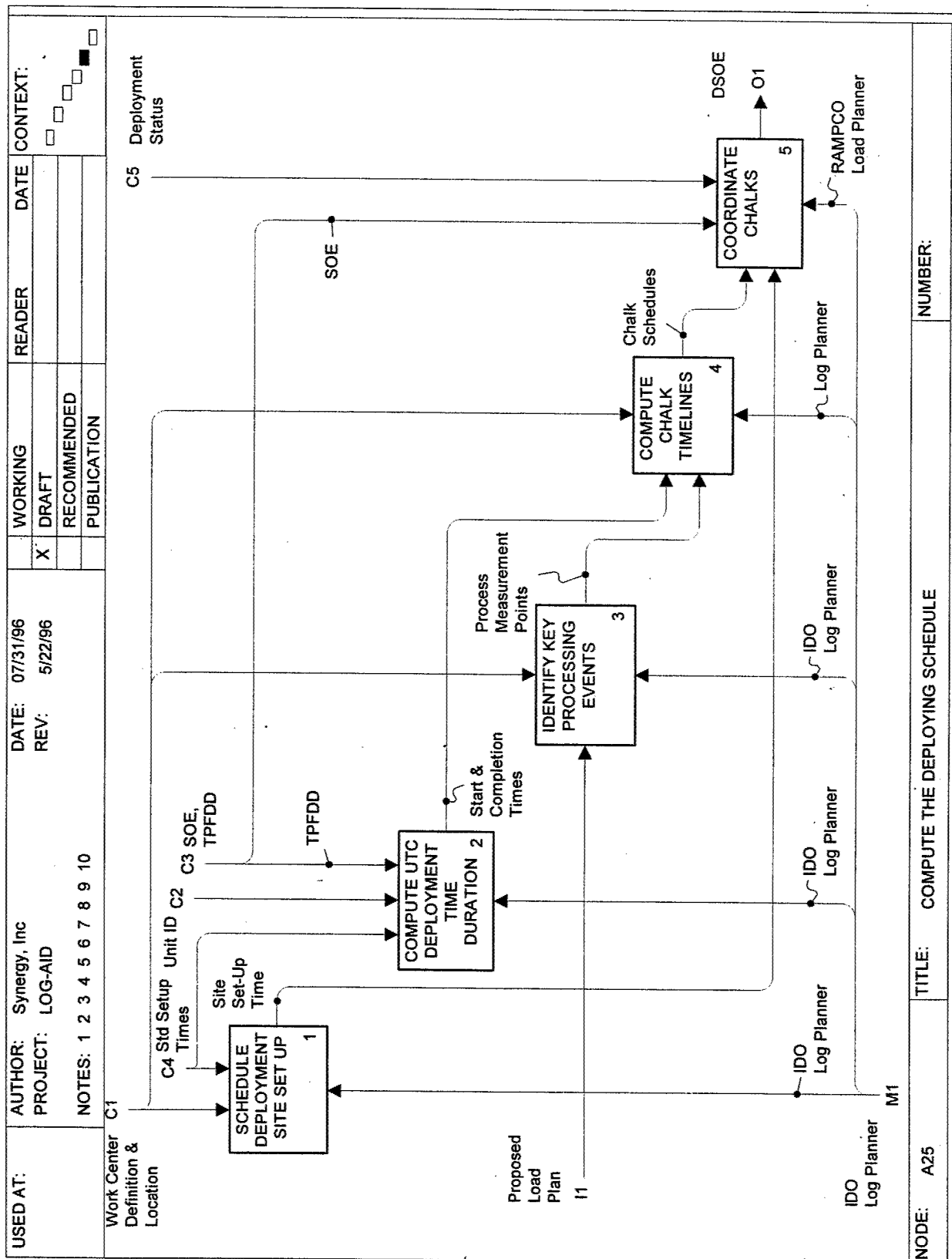




[illegible]

To prepare for the deployment effort, the definition and location of the required work centers are reviewed and time duration established for each work center setup. In parallel, the TPFDD evaluations identify the UTCs being deployed and their standard preparation time's accesses for the responsible to establish a generic deployment start and stop time. Also in parallel, a review of the proposed load plan, which contains the increment-to-chalk assignments, identifies the key deployment events to measure the progress and status of the deployment effort.

As the deployment progresses, deployment processing delays or decisions to accelerate the deployment schedule may occur. Modifications to the DSOE reflect these chalk adjustment requirements.



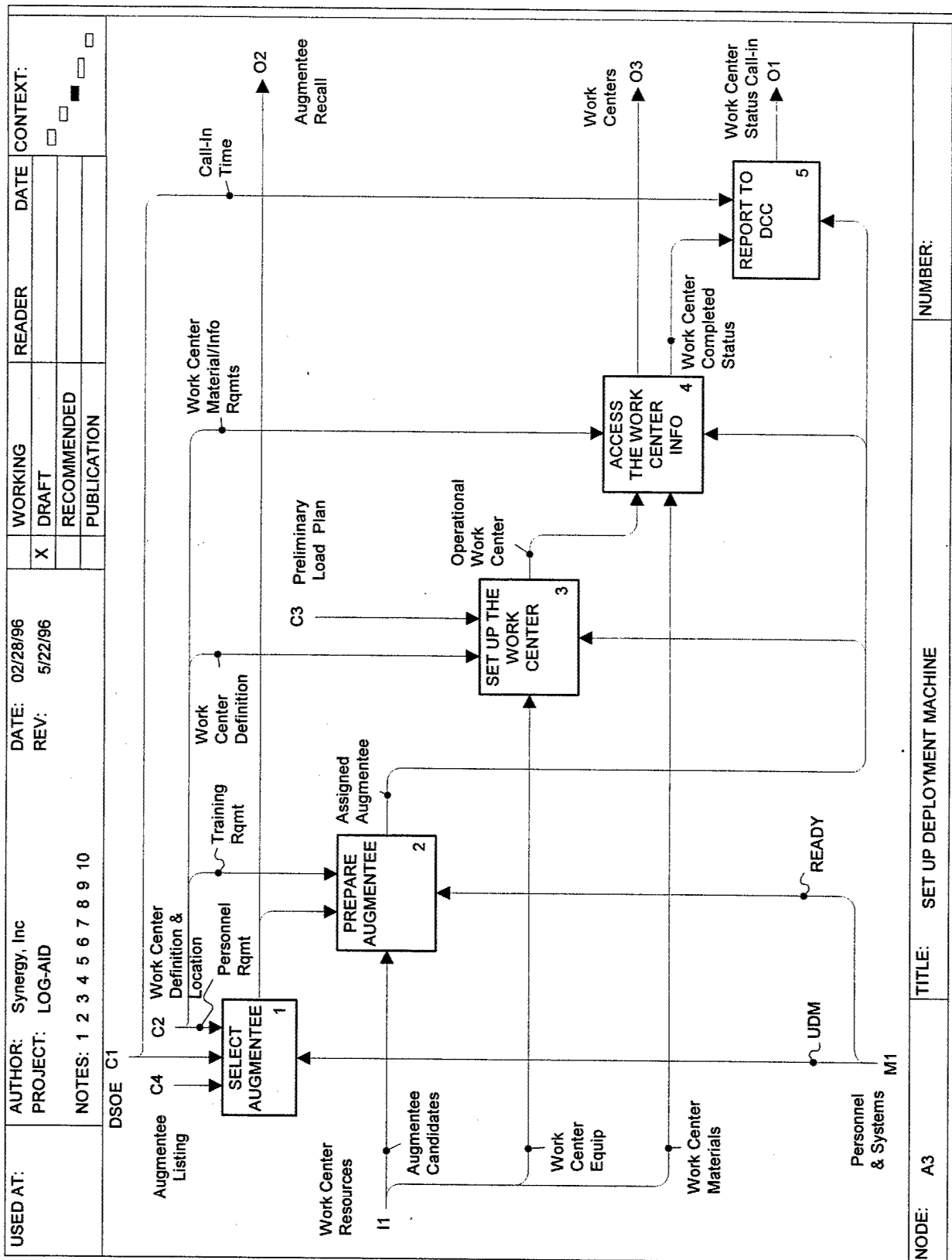
With the completion of the base's assigned resources, which includes the definition of the work centers and their intended locations, teams of augmentees arrive to both set up and operate the work centers in accordance with the schedule defined in the DSOE. Augmentee personnel do not deploy initially to another site but rather train for and perform the duties required at the various work centers to accomplish the deployment of others.

Through the Resource Augmentation Duty (READY) program, a listing identifies the augmentees and their status and training requirements. With respect to this listing, specific augmentee assignments are made based on their availability at the time of the deployment. The notifications to the selected augmentees specify the location, dates, and times for reporting. Upon arrival at the designated location and time, a review of augmentees training records identifies their capabilities to perform the deployment duties. Augmentees receive their duty assignment, and updates to their READY program records document the training and experience gained during the deployment effort.

Deployment work center set up includes the physical set up of the center and the gathering of the information needed to perform operations within the work center. For example, the legal work center requires forms and materials needed to prepare Wills and Power of Attorney documents.

PDF and CDF activations begin at the completion of the set-up. For the CDF, activation requires the availability of resources to receive, inspect, marshal, and load equipment to meet support transportation requirements. For the PDF, activation requires the capability to fully control, monitor, and direct all personnel processing. The DCC activation requires the capability to monitor and provide overall control for all deployment activities.





The on-base transportation moves all the personnel and materials as necessary during the deployment effort. Depending on the needs of a site-specific base, these transportation needs may begin as part of setting up the deployment capability at the site and continue through the completion of the deployment.

The DSOE drives the transportation effort by identifying the preliminary number of personnel and cargo increments associated with each UTC listed in the DSOE. From this general information, transportation develops the initial movement plan that estimates the conveyance and driver requirements anticipated during the deployment time frame. Comparing these general requirements with their organic capabilities determines which of their resources may be needed for the deployment and to ensure the availability of the transportation capability as necessary during the deployment.

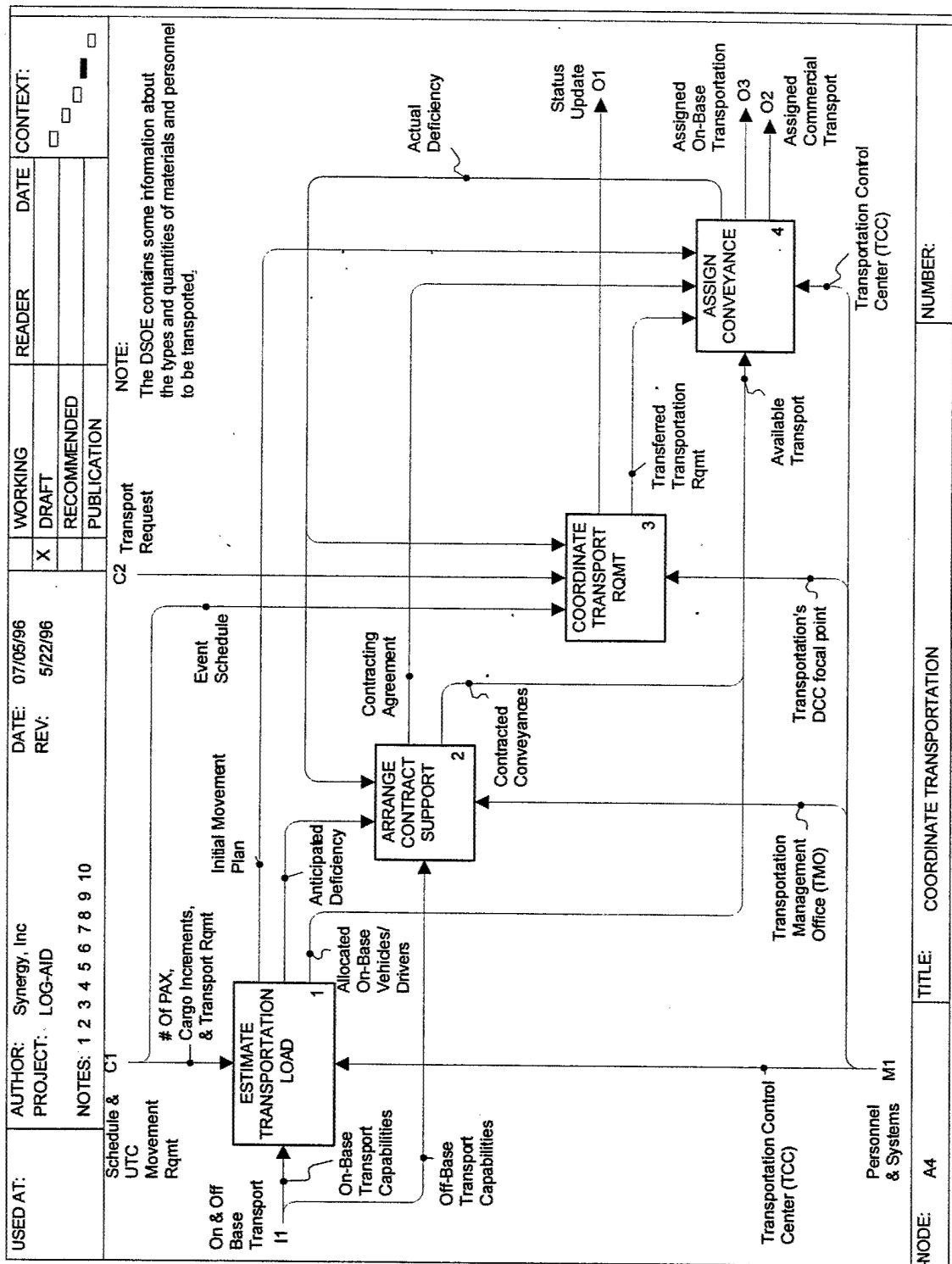
If this preliminary analysis identifies transportation deficiencies, contracts with appropriate transporting companies may be established, or recall of vehicles and drivers may occur. These arrangements may require the initiation of new contracts or the activation of existing contracts.

While the transportation representative in the DCC anticipates approaching transportation needs by watching the event schedule contained in the DSOE, no transportation actions begin until the receipt of a specific transportation request. When received and then transferred to the Transportation Control Unit (TCU), they compare the request to the planned requirement documented in the initial movement plan. Provided the availability of the transporting capability through either the on-base capability or contract agreements, the TCC assigns the appropriate transporting capability to satisfy the requirement.

At times, however, an unexpected transporting requirement may occur for which no military transportation capability exists. This actual deficiency initiates arrangements for contracting the transportation requirement to a non-military source. The assignment received by the driver specifies what to transport, the source and destination, and the designated start and completion times.

While the unit notifies the DCC that its cargo is ready for transport, neither the unit nor transportation notifies the DCC when the transport actually occurs. The DCC receives the transport completion from the CDF when the cargo arrives at the marshaling area and the PDF when the passengers arrive.





Once the selected UTCs and assigned units are designated, the deployment process focuses on getting the necessary personnel and cargo ready and loaded on the assigned conveyances. The proposed load plan specifies the assignment of UTC increments to chalks, thereby relating the increments to a specific conveyance for transport to the reception site.

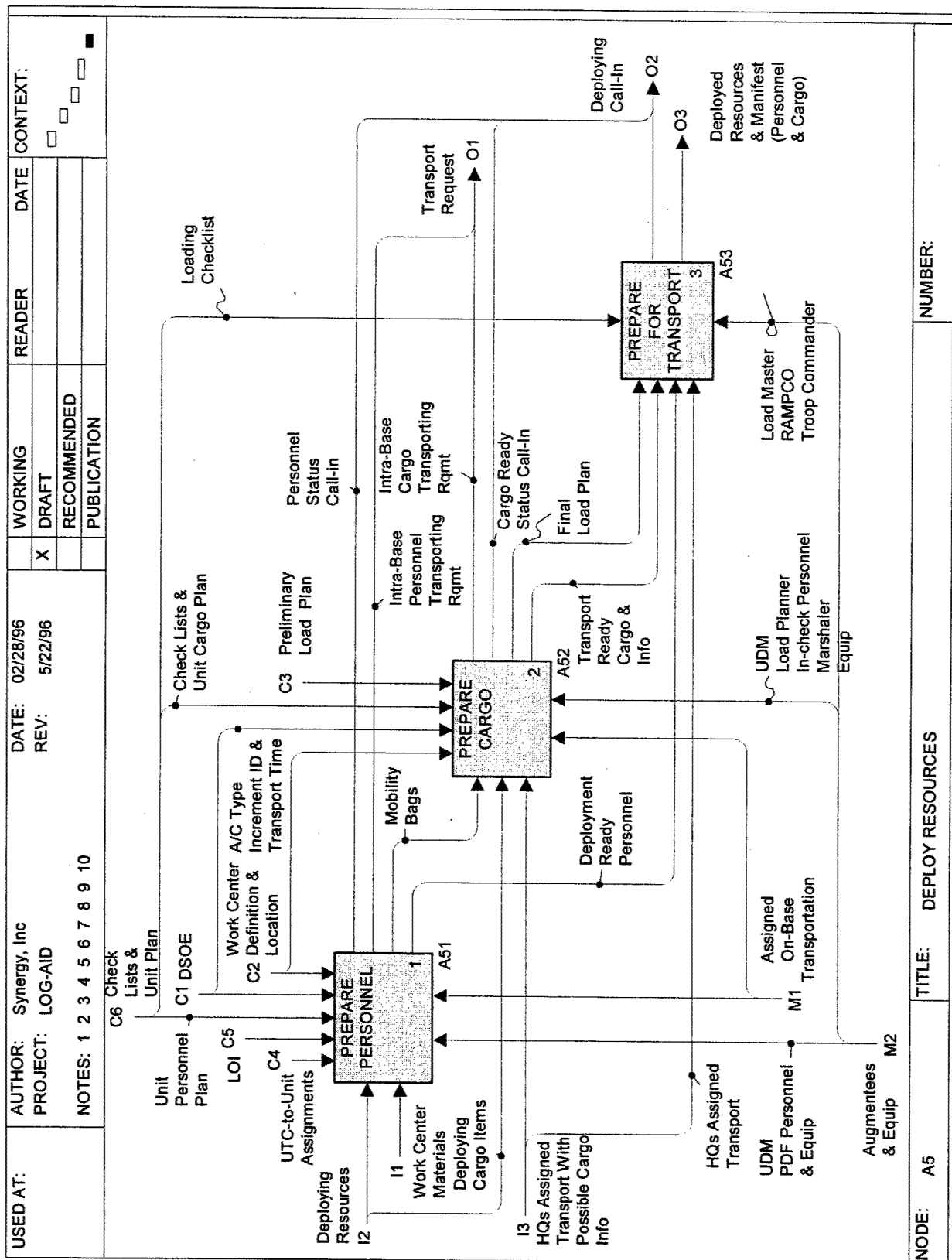
Notified of their responsibility to provide one or more UTCs, units prepare from two perspectives -- preparing the personnel and preparing the cargo. Personnel preparation involves identifying and notifying the selected personnel to report to the unit location at a specified time as dictated in the DSOE. At the unit, personal preparation actions include accessing their mobility folders.

At or before the time designated in the DSOE, the UDM coordinates transportation of the unit personnel to the PDF location for processing. At the PDF, the personnel become deployment ready and their personal bags collected and integrated with the UTC cargo processing.

In a manner similar to the personnel processing, the UDM prepares for deployment the cargo associated with the UTC capability requirement. This includes obtaining, organizing, and preparing the cargo in the time frame designated by the proposed load plan and the DSOE. At or before the time designated in the DSOE, the UDM coordinates transportation of the unit cargo increments to the CDF location for processing. Once approved through in-check, the increments move into the marshaling area by chalk. Because of changes in the increments due to tailoring and substitution, adjustments to the proposed load plan produce the final load plan. This final load plan also includes the cargo already on the conveyance at it arrives at the deploying site.

Using the final load plan as the guide, a loading checklist guides the loading of the cargo and then the personnel designated for that task. The load manifest results from the loading process and is provided to the Load Master, while a load plan is provided to the conveyance crew. GTN via CMOS documents the information from the manifest to allow tracking for the personnel and cargo flow during transport to the reception site

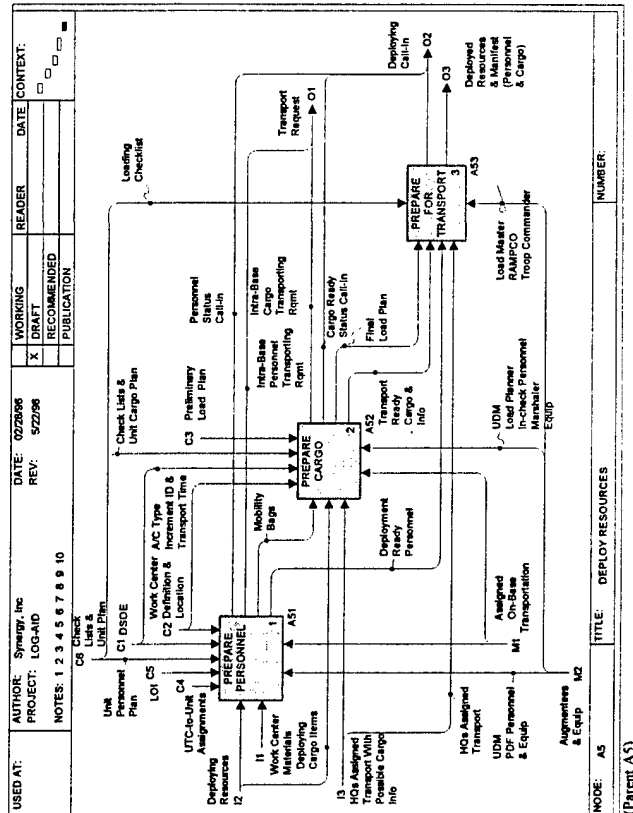




[illegible]

The personnel's processing within each unit begins by addressing personnel deployment issues in accordance with the DSOE's preparation timeline and in accordance with standard and specialized personnel requirements associated with the reception site and mission requirements. This processing includes such actions as loading the personal bags and updating all the personnel records. When ready, notification goes to transportation to transport the personnel from the unit location to the PDF. Within the PDF, each person releases the personal bag and then begins the personnel processing effort. If during the processing effort a rejection of a person occurs, the identification of that person initiates the retraction of that person's personal bag from the cargo preparation.

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USED AT:	AUTHOR: Synergy, Inc	DATE: 07/22/96	WORKING	READER	DATE	CONTEXT:
PROJECT: LOG-AID	REV: 5/22/96		X			
NOTES: 1 2 3 4 5 6 7 8 9 10			RECOMMENDED			
			PUBLICATION			


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graph TD
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        C1[UTC-to-Unit Assignments]
        C2[Work Center Definition & Location]
        C3[Personnel Plan]
        C4[Personnel To AFSC]
        C5[Personnel Call-In]
        C6[Personnel Call-In]
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        C91[Personnel Call-In]
        C92[Personnel Call-In]
        C93[Personnel Call-In]
        C94[Personnel Call-In]
        C95[Personnel Call-In]
        C96[Personnel Call-In]
        C97[Personnel Call-In]
        C98[Personnel Call-In]
        C99[Personnel Call-In]
        C100[Personnel Call-In]
    end

    subgraph Process
        1[PREPARE UNIT PERSONNEL]
        2[TRANSPORT PERSONNEL]
        3[CONTROL MOBILITY BAGS]
        4[PROCESS PERSONNEL]
        5[HOLD FOR TRANSPORT]
    end

    subgraph Outputs
        O1[Personnel Status Call-In]
        O2[Unit Load Ready Call-In]
        O3[Deployment Ready Personnel]
        O4[Personnel Call-In]
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A514 PROCESS PERSONNEL

The PDF comprises a set of work center processes that together complete the personnel processing for deployment, with the next step being the loading of the personnel onto the conveyance. This processing begins with the eligibility check of the deploying personnel. This check ensures the deploying individual meets the deployment eligibility criteria defined via a checklist within the base deployment plan and in deployment specific criteria. These criteria determine the preparedness of the individual in terms of personnel readiness information, deployment-related information contained in the readiness folder, and any additional information provided by the individual at the time of the eligibility check.

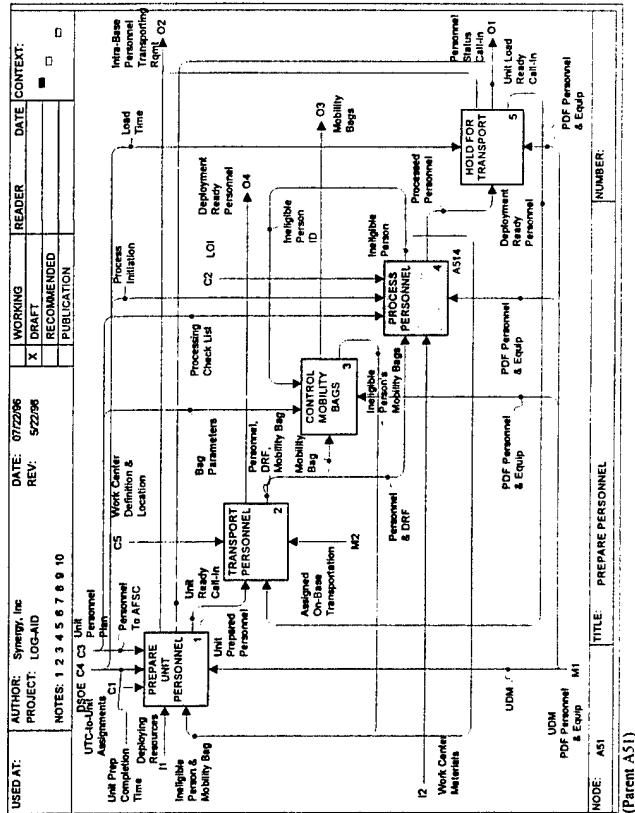
If the individual is found ineligible, the person returns to the UDM who finds an appropriate replacement to satisfy the shortfall. For eligible personnel, the eligibility work center also reviews the transportation requirements of the deployment plan checklist and special travel conditions within the LOI to determine the transportation requirements for the individual. These requirements are relayed to the transportation work center.

Inspections of the ID cards for eligible person determine the information accuracy and physical condition of the cards. If the information is inaccurate, the card is in bad condition, or the card expires during the deployment, the individual receives a new ID card. The ID card status checklist specifies the information and conditions requirements, and the individual provides any necessary update information.

Reviews of the medical records taken from the person's Personnel Deployment Readiness Folder are performed in accordance with the requirements of the reception site and any special medical requirements stated in the LOI. The individual receives any missing immunizations or medications, record updates made, and the updated records returned to the individual for placement in the Readiness Folder.

The individual processes through a set of consulting-type workstations using an exceptions processing perspective. The information provided by these workstations address the normal type of information and support required for a deployment but adaptations address the specific needs of the reception sites and mission requirements as stated in the LOI.

Sometime during the processing effort, deploying personnel receive a security and custom's briefing. Normally presented to groups being deployed together, the briefing contains information related to standard



reception site conditions and about any special conditions included in the LOI.

[illegible]

[illegible]

The emergency data work center ensures that each deploying person documented the next of kin and the insurance beneficiary as desired on DD Form 93. If the person updated the next of kin and insurance beneficiary information, copies remain in the personnel deployment folder, within the unit folder, provided to the MPF for inclusion in individual records, and with the personnel identified by the deploying individual. If the information needs updating or generation, DD Form 93 provides the means of doing so by the individual.

The chaplain work station provides the opportunity for each individual to discuss the situation they are facing, receive support materials, and gain specific information related to the religious and social customs existing at the reception area. The financial work center provides the opportunity for the deploying individual to receive any prepayments required for the deployment or to establish or make adjustments to the person's finances. Possible changes may include direct deposit setup or direct payments made to outstanding debts. To accomplish this requires the deploying person provide the necessary account numbers and specify where the designated information be sent. In addition, within the financial work center, the deploying person may also receive advance payment or credit cards (if the individual American Express cards are centrally held) as directed by standard or special conditions.

120

USED AT:	AUTHOR: Synergy, Inc PROJECT: LOG-AID NOTES: 1 2 3 4 5 6 7 8 9 10	DATE: 07/23/96 REV: 5/22/96	WORKING <input checked="" type="checkbox"/> DRAFT <input type="checkbox"/> RECOMMENDED <input type="checkbox"/> PUBLICATION	READER	DATE	CONTEXT:
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Standard C2

Eligible Person With Exceptions 11 → Emergency Update Info → **UPDATE EMERGENCY DATA 1**

12 Consulting Materials → DD Form 93 → Blank Wills & Power Of Attorney → **PROVIDE LEGAL ASSISTANCE 2**

Legal Info Update → Religious Materials → Financial Materials → Commercial Flight Materials

Religious Info Update → Financial Info Rqmt

Eligible Person → Emergency Data Personnel M1

C3 Reception Site Special Conditions

Next of Kin & Insurance Beneficiary Info and Delivery Info → **PROVIDE LEGAL ASSISTANCE 2**

Will, Power of Attorney, & Delivery Directions → **PROVIDE LEGAL ASSISTANCE 2**

Religious Materials & Support → **PROVIDE RELIGIOUS SUPPORT 3**

Financial Adjustments → **PROVIDE FINANCIAL SUPPORT 4**

Troop Commander Packet With Manifest → **PROVIDE TRAVEL SUPPORT 5**

Travel Agent or TMO

NODE: A5145	TITLE: PROVIDE CONSULTATION	NUMBER:
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A52 PREPARE CARGO

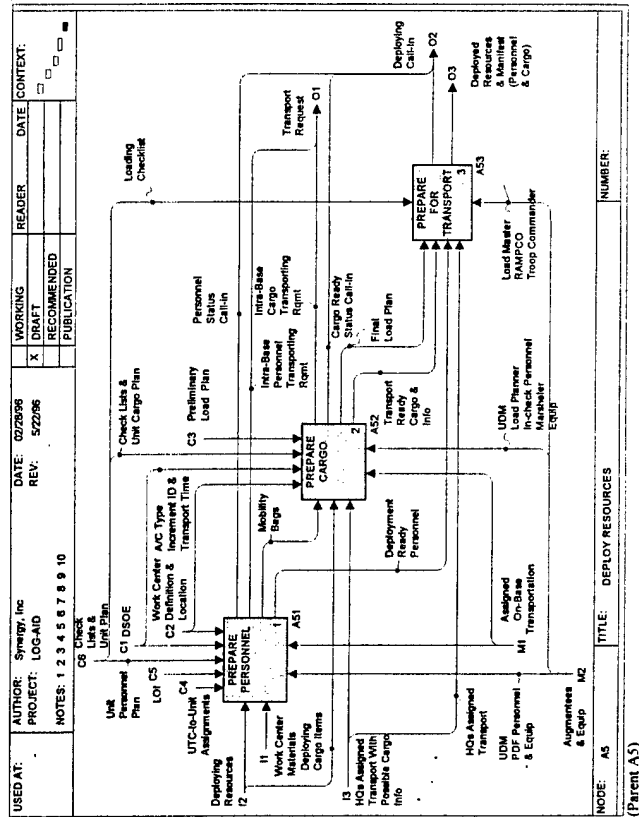
When a UTC deployment includes cargo, the unit assigned to satisfy the deployment gathers and prepares the cargo for shipment. The UDM, using the assigned UTC requirements, identifies the types of cargo as well as the specific cargo items being deployed. From the DSOE the UDM identifies the aircraft type assigned for cargo shipment, the number for each cargo increment, and the cargo transfer time to the marshaling area. The type dictates restrictions for pallet height, weight and aisle-width, especially with C-130, KC-10, KC-135 or C-17 aircraft.

Referencing the cargo to increment assignments, the UDM guides the building of the pallets with the designated cargo. Once built, pallet increments are weighed and measured while rolling stock increments have their centers of balance computed as well as being weighed and measured. A placard containing the increment number, contents, weight, measurement, and hazardous material information attaches to the increment, completing the preparation for transport to the marshaling area. For individual or "stand alone" rolling stock equipment items, the same process is followed, however, an additional measurement determines the item balance point needed to safely pick up and move the item.

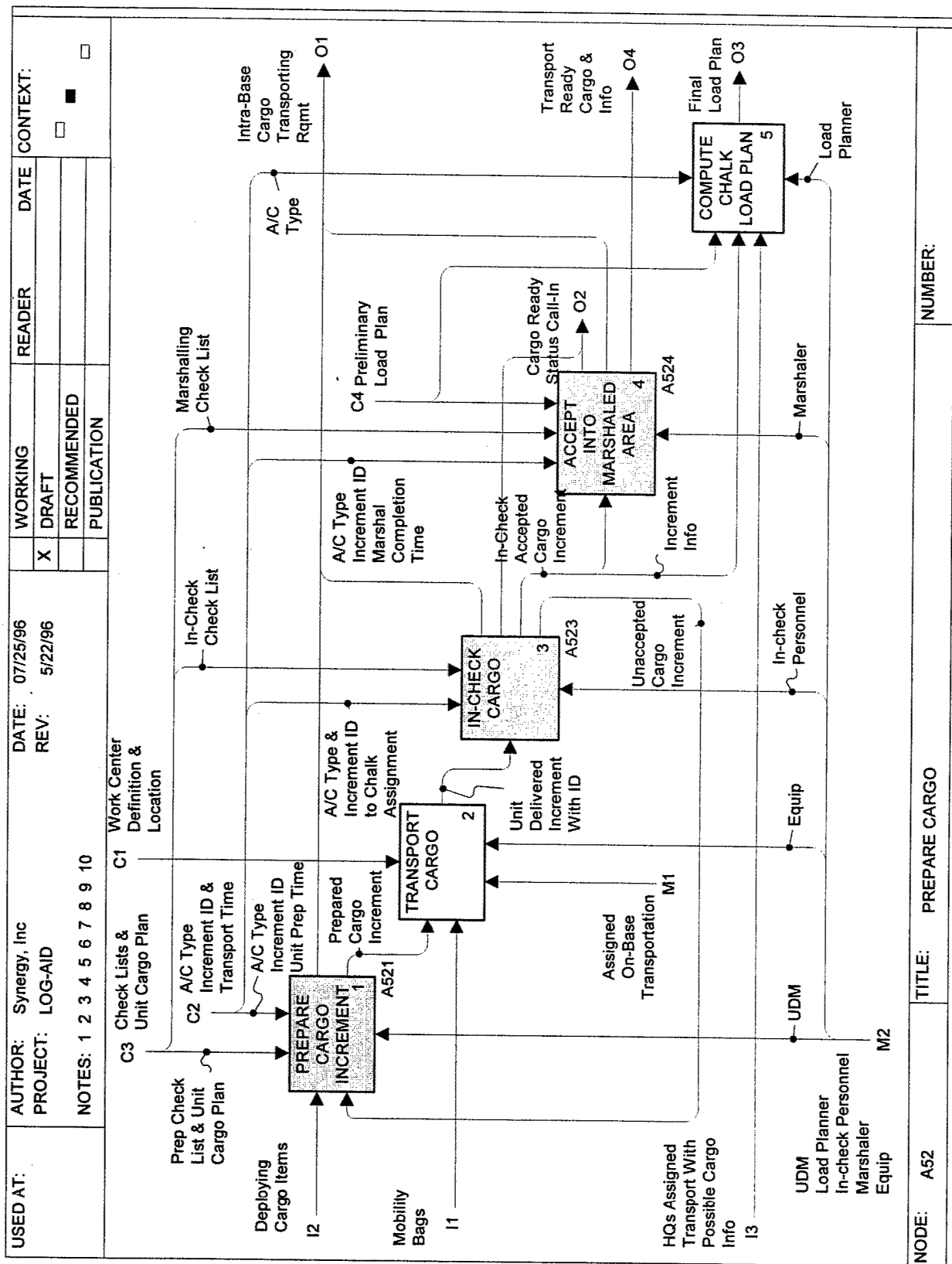
When the unit completes its cargo preparation, a cargo movement transportation requirement call is made to the transportation representative in the DCC. This call initiates the DSOE status update. The DCC transportation representative then calls the TCU for the assignment of conveyances to move the cargo from the unit location to the designated in-check area.

An inspection performed at the marshaling area determines the acceptance of the cargo increment. If not accepted into the marshalling area, UDM receives notification for its non-acceptance and the reason, which may be a problem with fuel levels, fluid leaks, improper increment building, and improper hazardous material markings. The UDM assigns a team to repair the problem at the marshaling area or replace the defective item. The accepted increments are positioned in the in-check area according to the initial chalk assignment. Upon increment acceptance, a message or phone call updates the DCC. Once all increments designated for a chalk are received into the marshalling, a status update message to the DCC provides formal notification that the chalk is ready for loading and awaiting the transport aircraft.

In preparation for loading, updates to the increment parameters computed during in-check define adjustments to the initial load plan so as to



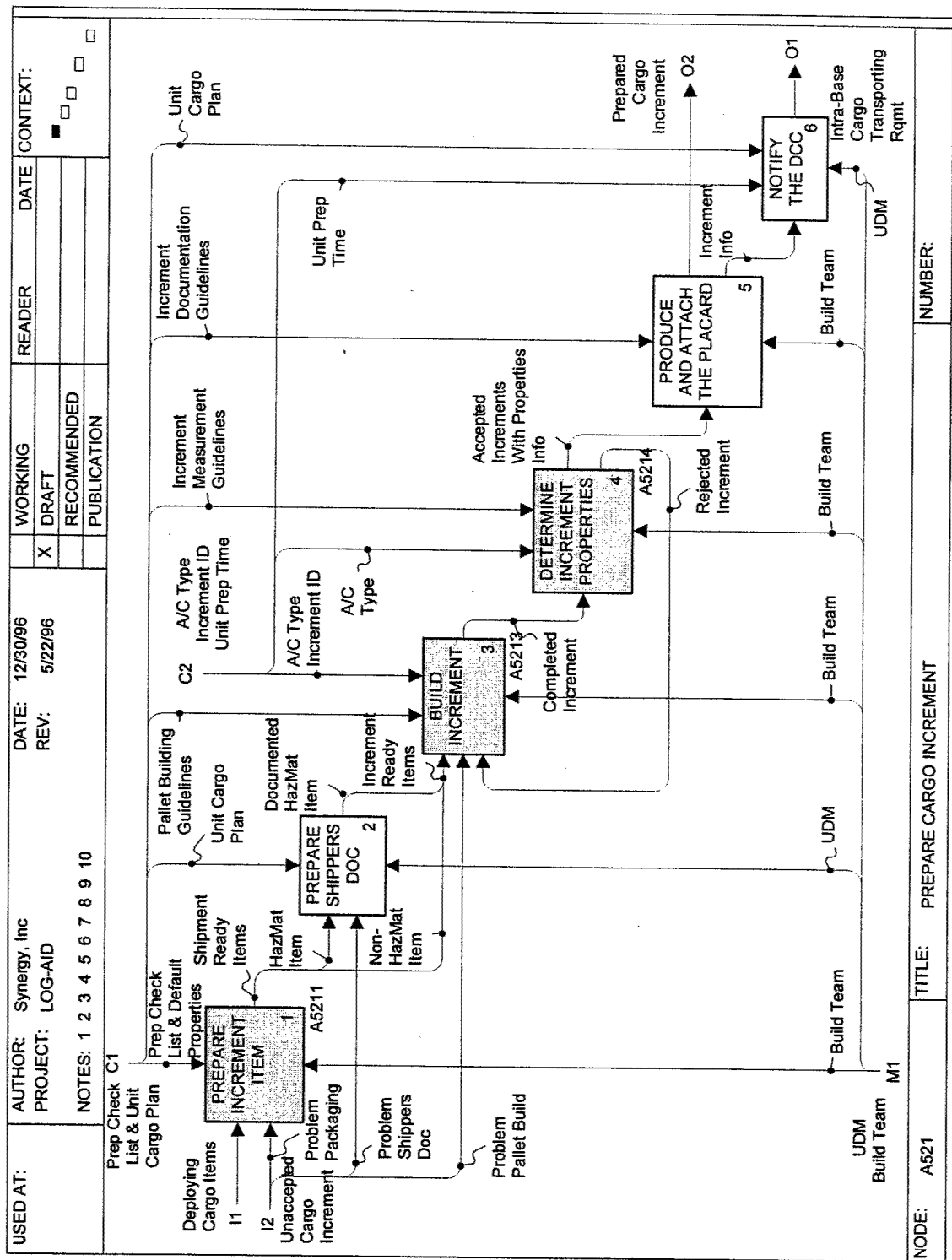
produce the final load plan. However, even if the final load plan varies from the initial load plan, the increment positions in the chalk usually remain unchanged.



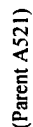
[illegible]

Characteristics for each increment are determined and confirmed against the aircraft type restrictions. These characteristics, consisting of weight, measurements, and center of balance for rolling stock, are documented on the placard attached to each increment. Increment rejection occurs if the increment characteristics fall outside the restrictions for the transporting conveyance, thus requiring repacking. With the acceptance of the increment by the UDM, a call to the transportation representative in the DCC provides the notification that the increment is ready for transport to in-check.

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Responsible for the selection and preparation of each deploying cargo item contained within the assigned UTC for deployment belongs to the unit. Packaging of the item begins in accordance with established preparation guidelines. Depending on the item, these guidelines include the placement of items in boxes as necessary, establishing the correct fluid levels, and placement of the correct markings. The weight and measurements of the packaged items are obtained and documented in accordance with the item documentation procedure.



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Prep Check C1

Deploying Cargo Items
I1 → I2 → Problem Packaging

Prep Guidelines

1 PREPARE FOR TRANSPORT

Item Packaged by Unit

2 PLACE ON SCALE

Item Weight From Unit

Item Weighed by Unit

Measurement Procedures

3 DETERMINE ITEM SIZE

Item Measurements From Unit

Item Measured by Unit

4 DOCUMENT INCREMENT INFO

Shipment Ready Items → O1

UDM M1

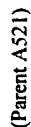
Item Documentation Procedure

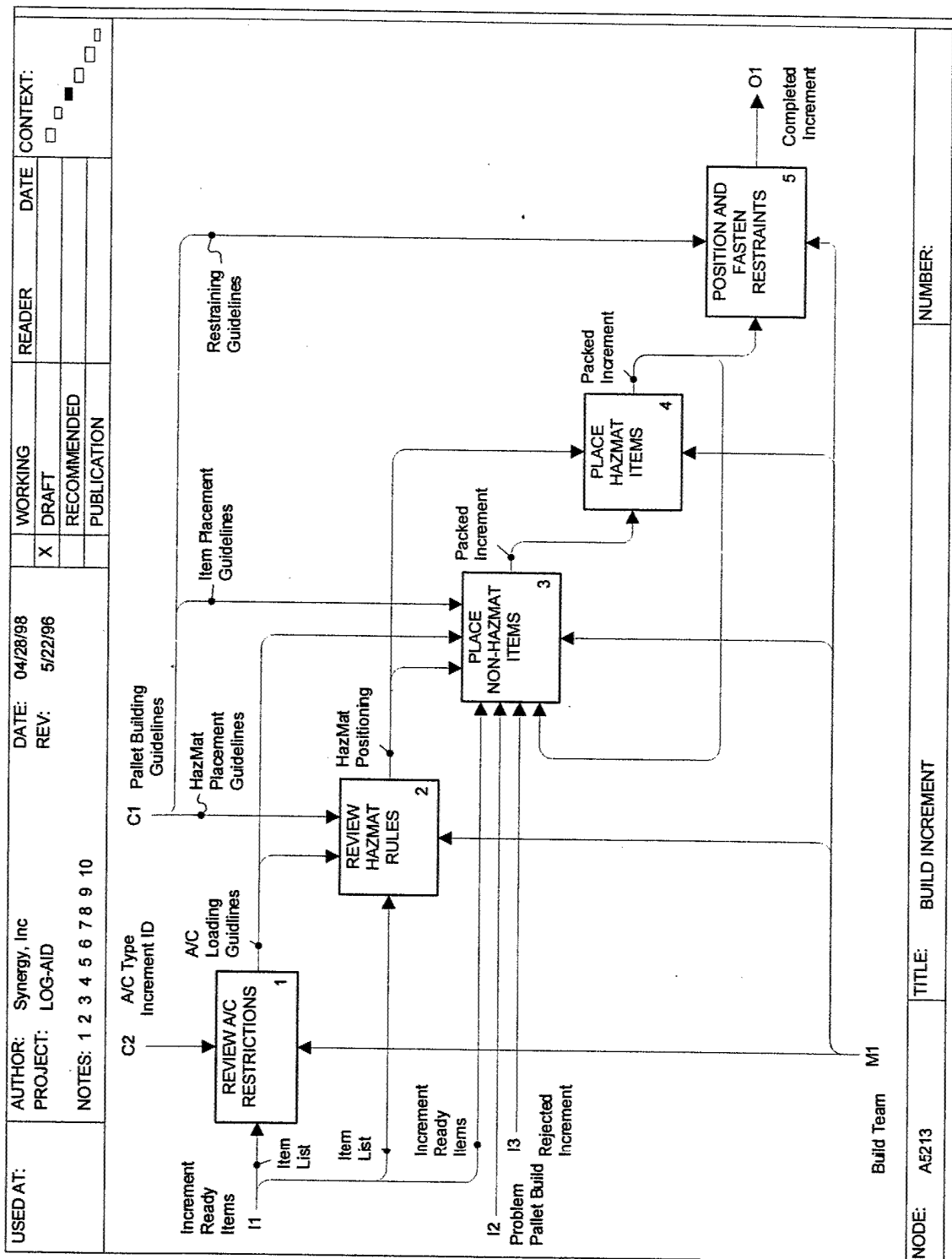
NODE: A5211	TITLE: PREPARE INCREMENT ITEM	NUMBER:
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Completing the identification of items to be included in an increment, the building of the increment begins in accordance with the restriction of the aircraft and the guidelines for increment building. The lists of items for inclusion in the increment are reviewed with respect to the type of aircraft designated to transport the increment. Included in this analysis are the size of the increment and the possible positioning of hazardous materials to accommodate aircraft facilities. The list is further analyzed with respect to allowable placement of hazardous materials within the increment itself based on hazardous materials placement guidelines as well as the aircraft placement restrictions.

With the increment specific guidelines developed, the process of placing the designated items to form the increment. This is an iterative process of placing non-hazardous and hazardous materials in a sequence facilitating the increment building. In general, the process involves placing the heaviest, and often the largest, item in the bottom center. Subsequent items, both non-hazardous and hazardous materials, are positioned in accordance with the placement decisions. Once packed, the closing of the increment ensure its safe transport. The manner in which the closing occurs depends on the type of structure use to build the increment. For pallets, the closing involves the placement of netting over the items and fastened to the pallet in a defined manner. For bins, the closing may be as simple as closing and locking the door.

As increment move through the deployment process, problems may be identified, requiring adjustments to the increment. The adjustments vary from tightening the netting to totally rebuilding the increment.





[illegible]

(Parent A521)

USED AT:	AUTHOR: Synergy, Inc PROJECT: LOG-AID	DATE: 01/03/97 REV: 5/22/96	WORKING X DRAFT	READER	DATE	CONTEXT:
	NOTES: 1 2 3 4 5 6 7 8 9 10		RECOMMENDED			
			PUBLICATION			
<pre> graph TD I1[I1 Completed Increment] --> 1[1 PLACE ON SCALE] 1 -- "Increment With Weight Info" --> 2[2 DETERMINE INCREMENT SIZE] 2 -- "Increment With Weight & Size Info" --> 3[3 COMPUTE CARRYING POSITION] 3 -- "Accepted Increments With Properties Info" --> O1[O1] 3 -- "Rejected Increment" --> O2[O2] 3 -- "Rolling Stock With CB Info" --> RS[Rolling Stock Increments] RS --> 2 2 -- "Non-Rolling Stock Increments" --> RS 1 -- "Increment Weighing Procedure" --> C1[C1] 1 -- "Increment Measurement Procedure" --> C2[C2] 1 -- "A/C Type" --> COB[COB Computation Procedure] C1 --> 2 C2 --> 2 COB --> 3 </pre> <p>Increment Measurement Guidelines</p> <p>Build Team M1</p>						
NODE: A6214	TITLE: DETERMINE INCREMENT PROPERTIES				NUMBER:	

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graph TD
    I2[I2: Prep Check: List & Unit Cargo Plan] --> 1[1: PREPARE CARGO INCREMENT]
    I1[I1: Deploying Cargo Items / Mobility Bags] --> 1
    1 --> 2[2: TRANSPORT CARGO]
    2 --> 3[3: IN-CHECK CARGO]
    M1[M1: Assigned Transportation] --> 3
    3 --> 4[4: ACCEPTED CARGO]
    O3[O3: Cargo Ready Status Callin] --> 4
    4 --> 5[5: MARSHAL CARGO]
    O4[O4: Transport Ready Cargo & Info] --> 5
    5 --> 6[6: MARSHAL CARGO]
    6 --> 7[7: CONVERT CHALLENGE LOAD PLAN]
    O5[O5: Final Load Plan] --> 7
    7 --> 8[8: LOAD PLANNER]
    C3[C3: Check Lists & Unit Cargo Plan] --> 1
    C1[C1: Work Center Definition & Location] --> 1
    C2[C2: In-Check Check List] --> 3
    
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USED AT: AUTHOR: Synergy, Inc
PROJECT: LOGAID
NOTES: 1 2 3 4 5 6 7 8 9 10

DATE: 07/25/96
REV: 5/22/96

WORKING: X
DRAFT:
RECOMMENDED:
PUBLICATION:

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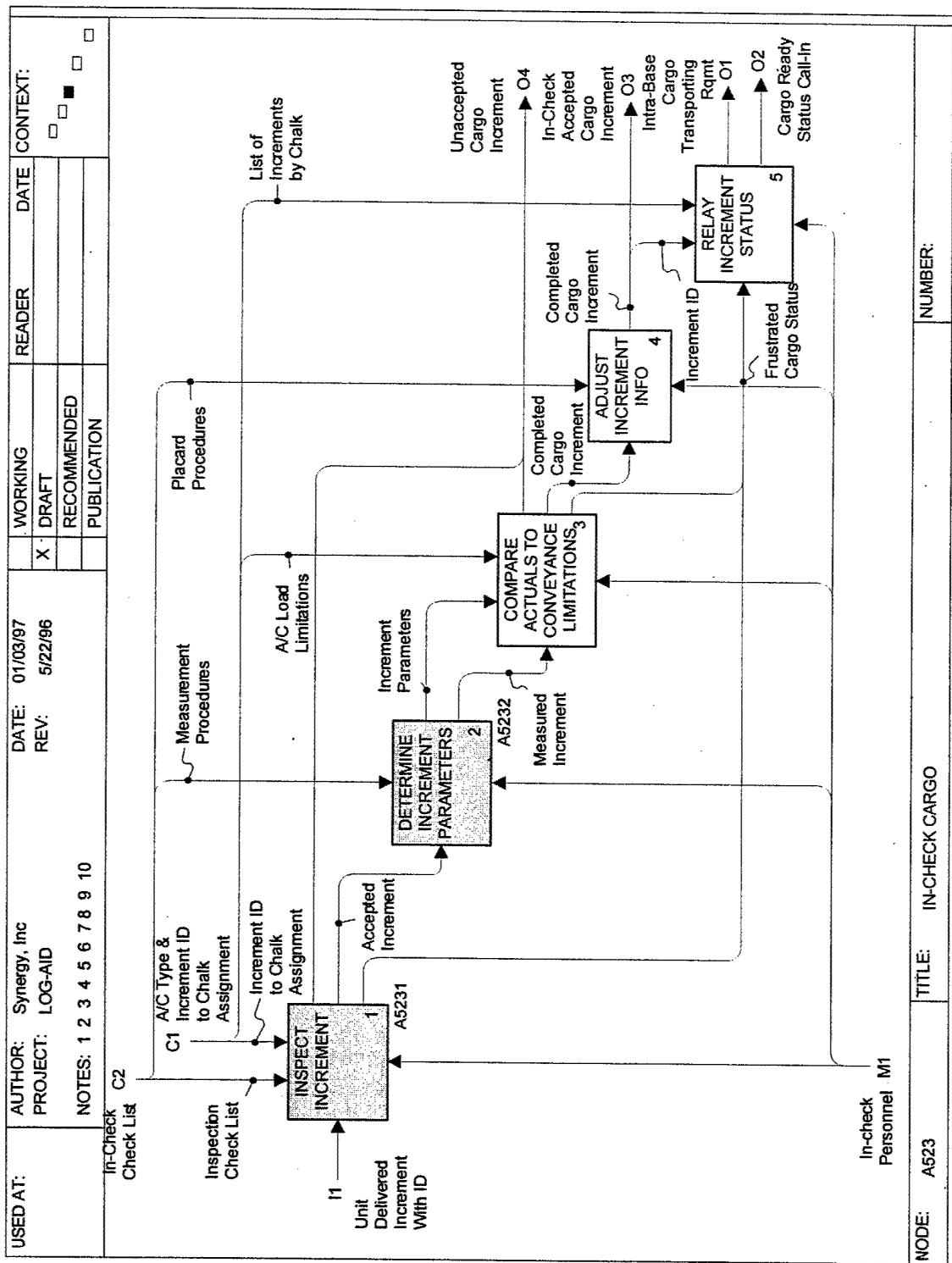
NUMBER:

TITLE: PREPARE CARGO

NOTE: A32

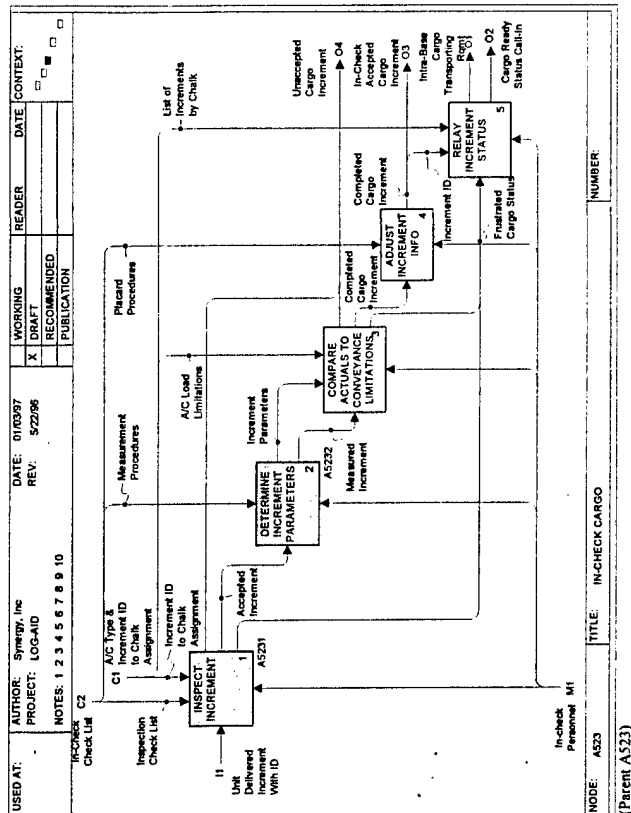
Parent A32)

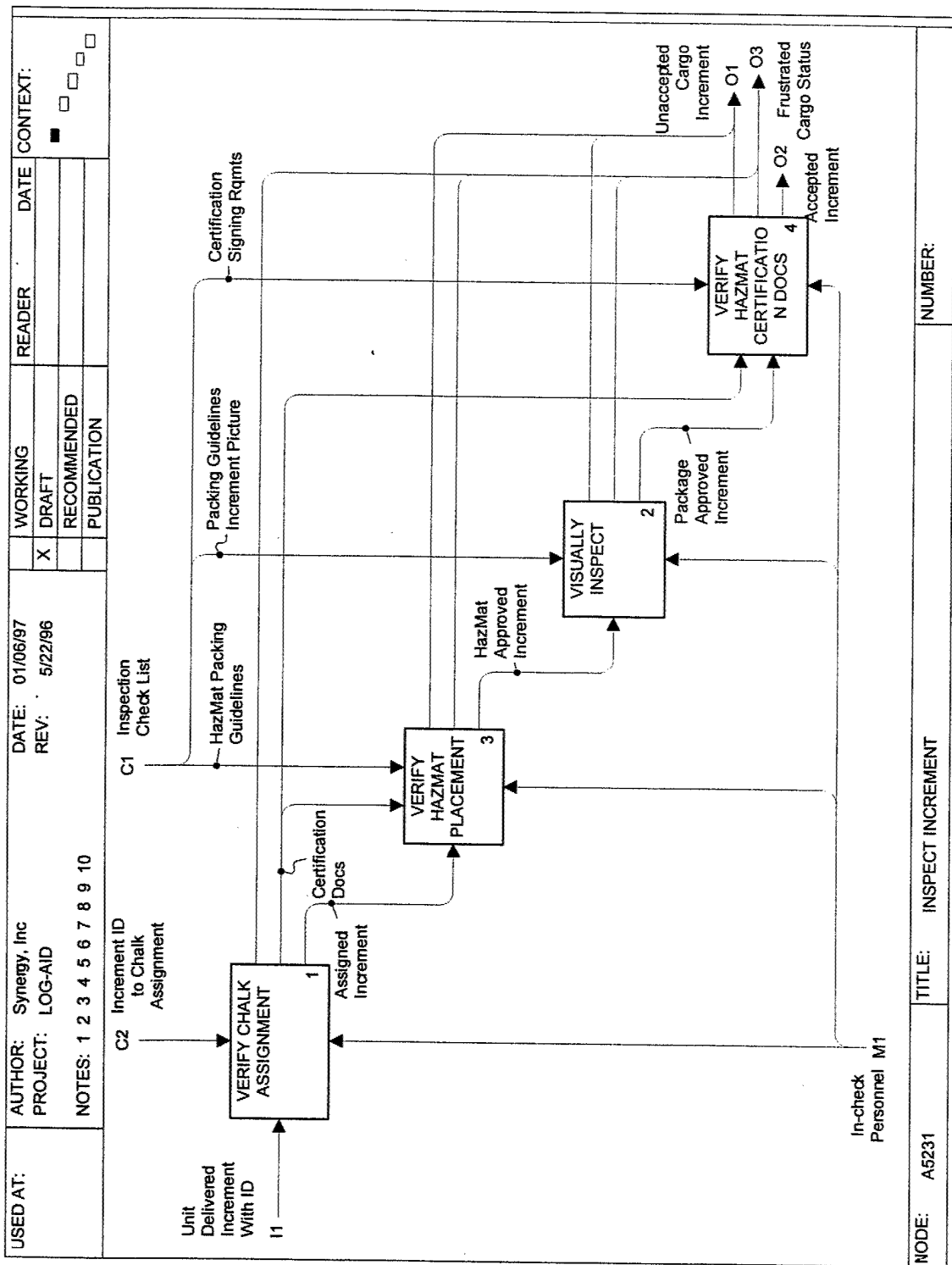
A visual inspection of an increment assigned to a chalk evaluates the physical condition of the increment; the hazardous materials contained within the increment, and the hazardous certification documents. The increment is deemed frustrated if any identified problems cannot be fixed easily and the appropriate UDM notified via a report to the DCC. Comparison of the dimensions for accepted increments to acceptable aircraft load limitations identify increments outside the limitations. Increments with dimensions outside these limitations are frustrated and processed as stated above. When accepted at in-check, updates to the placard represent the accurate increment information is reported to the DCC.



A5231 INSPECT INCREMENT

Upon arrival at the in-check, a comparison between the increment number and the list of chalks provided to in-check ensures the increment's readiness for processing. A review of the HazMat Certification documents against the hazardous materials on the increment ensures their proper positioning and labeling. Finally, an overall inspection of the increment packing and the HazMat Certification documents verify proper signatures exist. A problem found at any point during this in-check process causes the increment to receive a frustrated cargo status, with the DCC receiving a report of this status.





Having passed the visual inspection by in-check, the official physical parameters of the increment are determined in accordance with the designated procedures. These parameters include weight, measurements of the length, width, and height, and center of balance for the increment.



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PROJECT: LOG-AID	REV: 5/22/96	X	DRAFT			<input type="checkbox"/>
NOTES: 1 2 3 4 5 6 7 8 9 10			RECOMMENDED			<input type="checkbox"/>
			PUBLICATION			<input type="checkbox"/>

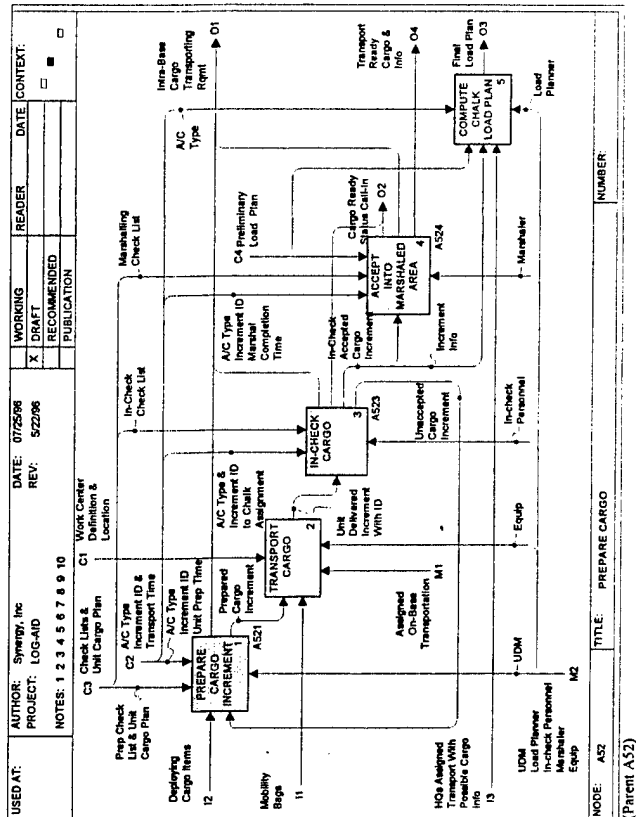

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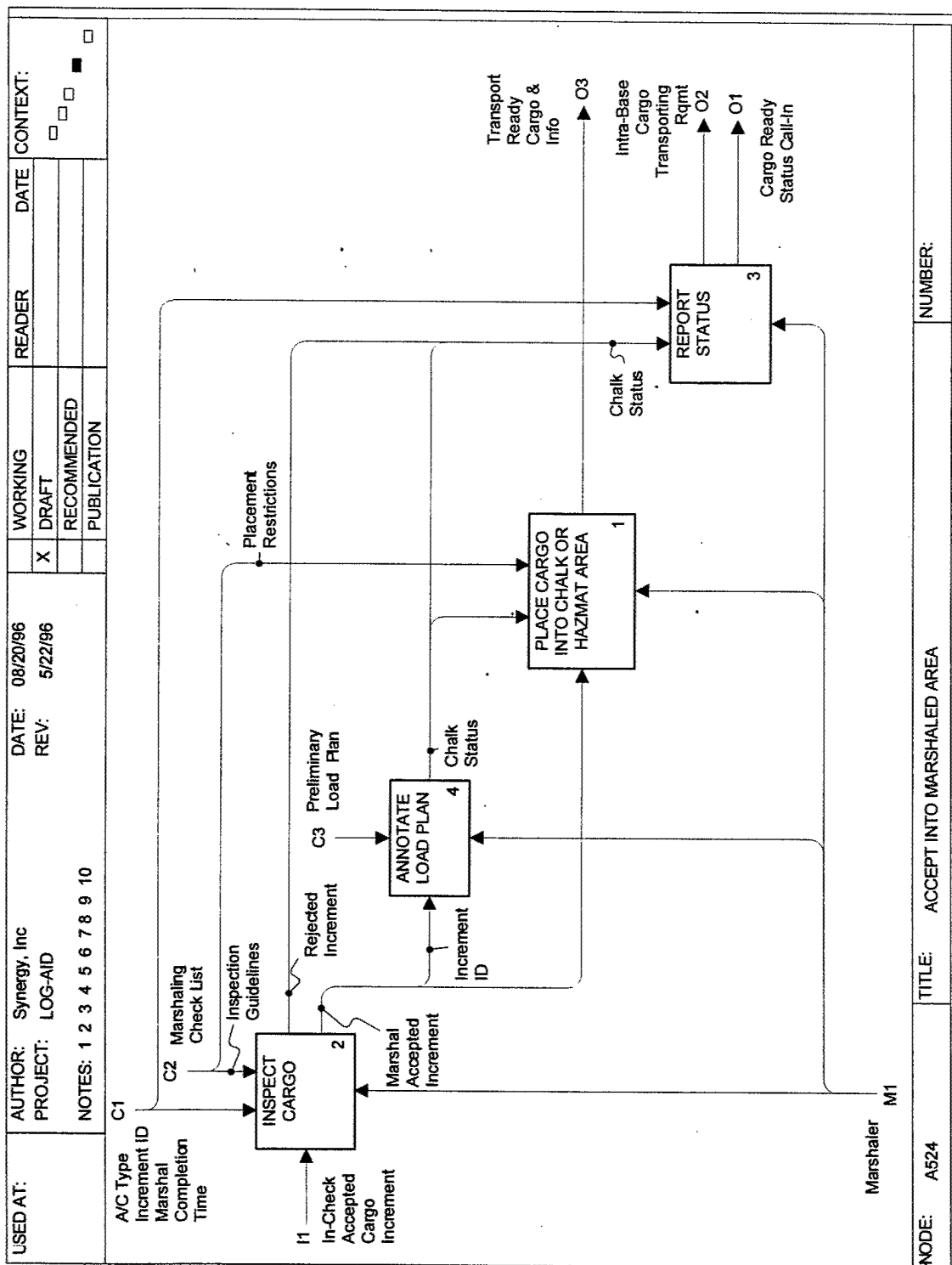
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    I1[Accepted Increment I1] --> 1[1 DETERMINE WEIGHT]
    C1[C1 Measurement Procedures] --> 1
    1 -- "Increment Weight" --> 2[2 DETERMINE DIMENSIONS]
    2 -- "Increment Length, Width, & Height" --> 3[3 DETERMINE CENTER OF BALANCE]
    M1[In-check Personnel M1] --> 3
    3 -- "Increment CB" --> IP[Increment Parameters]
    3 -- "Measured Increment" --> O2[O2]
    SC[Size Computation Procedures] --> 2
    CB[CB Computation Procedures] --> 3
  
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NODE: A5232	TITLE: DETERMINE INCREMENT PARAMETERS	NUMBER:
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A524 ACCEPT INTO MARSHALED AREA

The increment moves to the marshaling area after acceptance at the in-check. Upon arrival at the marshaling area, a visual inspection of the increment verifies the quality of the increment in accordance with respect to the marshaling checklist, the type of aircraft, and the planned marshaling time again. Aimed at ensuring the safety of the cargo to transport, the inspection includes checking that no cargo shifted on the pallet, no fluid leaks exist, no flat tires exist, etc. If an identified cargo problem cannot be corrected by the marshaling personnel, a frustrated increment assignment is made to the increment along with its notification sent to the responsible UDM via the DCC. Following the successful inspection of all increments for a chalk, an update to the initial load plan indicates the successful receipt of the increment for the chalk. Placement of the increment in the chalk area is done in accordance with the load plan. A message the DCC transmits the updated status to the DCC.



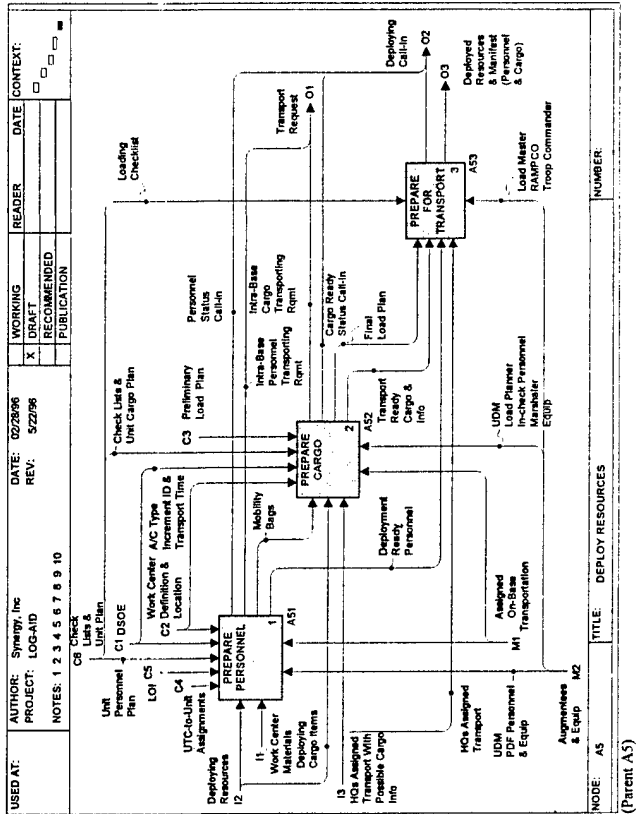


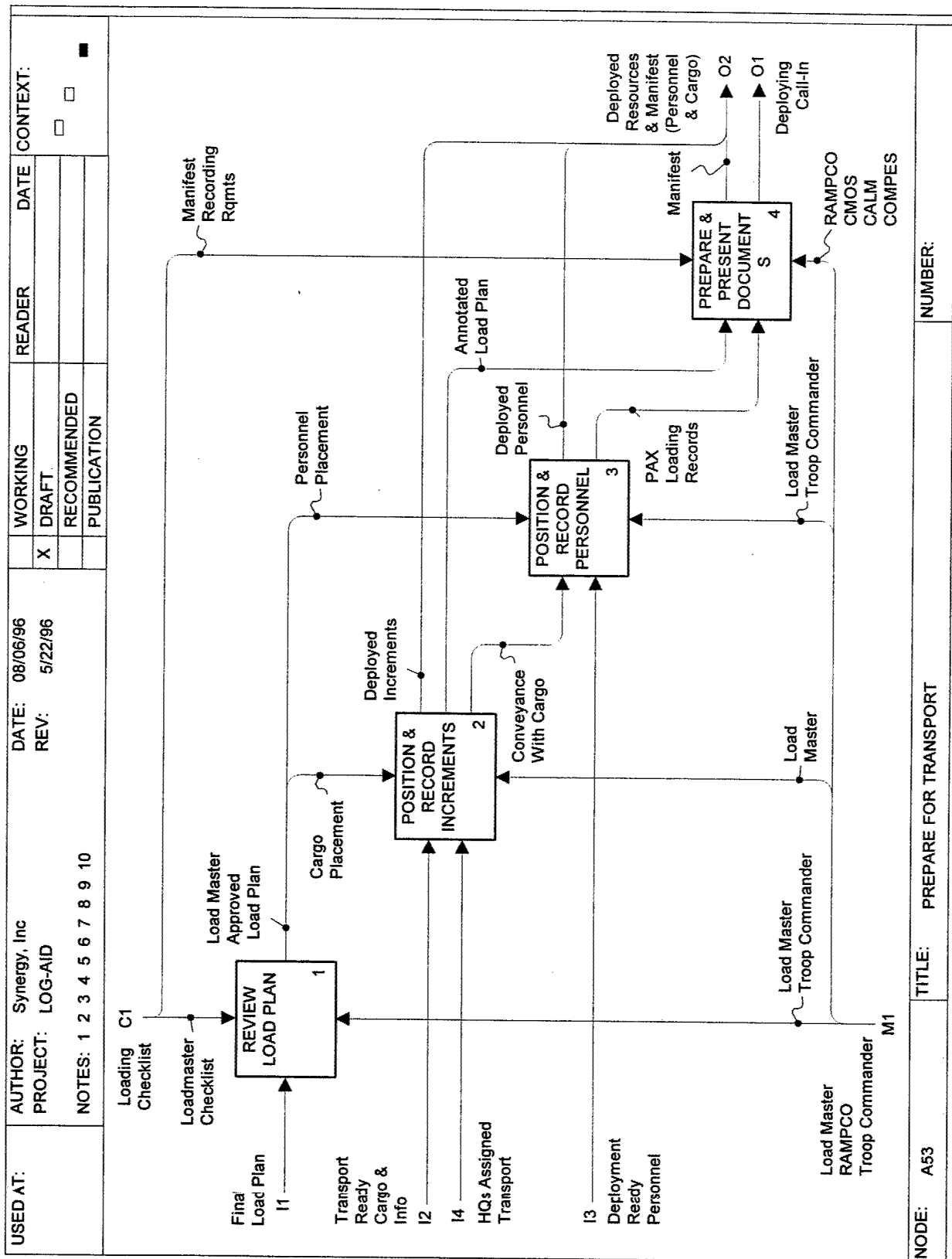
A53 PREPARE FOR TRANSPORT

With all preparation completed, the cargo and personnel are ready for loading onto the designated conveyance. The final load plan specifies the positioning of the cargo within the chalk area, and both the cargo and personnel on the conveyance. The Load Master receives a briefing via the final load plan defining the passengers, cargo, and hazardous cargo ready for loading onto the aircraft. Because the Load Master possesses final responsibility for the safety of flight, he reviews the load plan and makes any adjustments he sees necessary with respect to the ACL or load positioning on the conveyance. The loading of the cargo and personnel involves the movement of cargo from the chalk area to the conveyance. The load plan, as adjusted by the Load Master, designates the loading sequence. The loading of personnel normally follows the cargo loading, but may occur before if required by the physical placement of the personnel.

As each cargo increment moves onto the conveyance, the Load Master confirms the move by designating it on the final load plan. As each person enters the conveyance, the Deploying Troop Commander confirms his or her names against the list provided by the PDF. Assuming no variations to the final load plan during the loading process, the confirmation list provides the cargo and personnel manifests provided to the Load Master.

Selected information from the load plan is documented and presented to the aircrew. This information includes the number of increments, the number of personnel, the total weight, hazardous materials information, and the aircraft center of balance.





LOG-AID AS-IS ACTIVITY MODEL GLOSSARY

This section of the appendix contains the LOG-AID As-Is Activity model glossary divided into two parts: (1) Input, Control, and Output definitions, and (2) mechanism definitions for both systems and personnel roles.

The Input, Control, and Output part of the glossary contains three columns identified as Name, Definition, and Reference. The Name identifies an interface arrow contained within the model and the Definition describes what that arrow means. The Reference column identifies the one or more diagrams on which that arrow name appears, with the reference list presented in the hierarchical order of the model. The Mechanism Glossary contains two columns: (1) the mechanism name, and (2) the mechanism description. Both glossaries are sorted using the Name column.

LOG-AID AS-IS GLOSSARY

Name	Definition	Reference
# Of PAX, Cargo Increments, & Transport Requirement	(Number of Personnel and Cargo Increments, and the Transportation Requirement) For each UTC designated for deployment, the number of personnel and cargo increments contained within those UTCs, and the type and size of the conveyances needed to move the personnel and increments.	A4
A/C Load Limitations	(Aircraft Load Limitations) The characteristics of the transporting aircraft that must be considered during the loading of that aircraft.	A523
A/C Loading Guidelines	(Aircraft Loading Guidelines) The rules and restrictions unique to the aircraft for developing increments that will be transported in the aircraft.	A5213
A/C Type	(Aircraft Type) The designation of the aircraft on which a specific chalk is being designed for transport.	A52 A521 A5214
A/C Type & Increment ID to Chalk Assignment	(Aircraft Type and Increment Identifier to Chalk Assignment) The correlation among the increments assigned to a chalk and the type of aircraft into which the chalk is to be loaded.	A52 A523
A/C Type Increment ID	(Aircraft Type and Increment identifier) The designation for the type of aircraft on which the increment will be transported and the unique identifier for the increment.	A521 A5213
A/C Type Increment ID & Transport Time	(Aircraft Type, Increment Identification, and Transport Time) The identification for the type of aircraft on which the cargo unit will be transported, the number of the increment assigned to the aircraft, and the time at which the unit must have that increment ready for transportation to the work centers.	A5 A52
A/C Type Increment ID Marshal Completion Time	(Aircraft Type, Increment Identification, and Marshaling Completion Time) The identification for the type of aircraft on which the cargo unit will be transported, the number of the increment assigned to the aircraft, and the time at which the increment must be ready for loading.	A52 A524
A/C Type Increment ID Unit Prep Time	(Aircraft Type, Increment Identification, and Unit Preparation Time) The identification for the type of aircraft on which the cargo unit will be transported, the number of the increment assigned to the aircraft, and the time at which the unit must have that increment at the in-check area.	A52 A521
Accepted Increment	A cargo increment that's physical packing is acceptable for safe loading into the transporting aircraft.	A523 A5231 A5232
Accepted Increments With Properties Info	(Accepted Increment With Properties Information) An increment the UDM is ready to release to the incheck process.	A521 A5214
Actual Deficiency	A requirement for on-base transportation that cannot be satisfied by on-base conveyances.	A4

Name	Definition	Reference
Allocated On-Base Vehicles/ Drivers	The conveyances and drivers assigned to respond to a request to move cargo and personnel within the base as part of a deployment operation.	A4
Annotated Load Plan	The Load Plan that has been marked to indicate the cargo increments that has been placed on the aircraft and is ready to be transported.	A53
Anticipated Deficiency	The inability to move cargo and personnel during a deployment based on correlation between the anticipated movement requirements and the conveyances available on the base.	A4
Anticipated Hot Spot & Mission Requirement	(Anticipated Hot Spot and Mission Requirement) The identification of a location in the world where a problem requiring military intervention is likely to occur and the mission scenario anticipated to provide the intervention.	A-1
Assigned Augmentee	Those individuals selected to support the current deployment effort.	A3
Assigned Commercial Transport	The commercial vehicle and driver assigned to satisfy a transportation requirement.	A0 A4
Assigned Increment	A cargo increment assigned to a specific chalk.	A5231
Assigned Name & SSN	(Assigned Name and Social Security Number) The name and social security number of an assigned qualified individual to satisfy an AFSC position of the UTC specified in the mission.	A22
Assigned On-Base Transportation	The vehicle and driver assigned to satisfy a transportation requirement.	A0 A4 A5 A51 A52
Assigned Serial #	(Assigned Serial Number) The serial number of a piece of equipment assigned to satisfy an NSN requirement of the UTC specified in the mission.	A22
Augmentee Candidates	A list of those individuals who have been trained to support the deployment process.	A3
Augmentee Listing	A list of all deployment processing augmentees for the deploying base.	A0 A3
Augmentee Recall	Notification to the selected augmentees as to when and where they are to report for duty.	A-0 A-1 A0 A3
Augmentees: & Equipment	(Augmentees and Equipment) A functioning work center with the proper support personnel and equipment.	A0
Available Prepositioned Resources	A list of resources at the designated reception site and which the unit decides will be available to them during their deployment.	A215
Bag Parameters	The definition of the contents of the personal bags authorized for use during this deployment.	A51
Base Resources	All the base equipment and supplies available to participate in the deployment by either supporting the effort or to be deployed.	A0 A-0 A-1

Name	Definition	Reference
Base-Supplied Item	An NSN requirement of the UTC that could not be satisfied at the unit level but can be satisfied at the base level.	A22
Battle Staff	The group of individuals who oversee the deployment process and the base operations during the deployment.	A1
Battle Staff Member Information	(Battle Staff Member Information) The list of eligible base personnel to serve on the battle staff.	A1
Blank ID Cards	(Blank Identification Cards) Personnel identification cards that are available within the PDF to be filled out with updated information or to replace worn or lost cards.	A514
Blank Wills & Power Of Attorney	Blank forms for wills and power of attorney that can be signed by an individual being deployed.	A5145
Call-In	A call to the DCC stating the status of the deployment. This status may be simply the current preparation status or may inform the DCC of a shortfall that cannot be satisfied.	A0 A2 A22
Call-In Time	The times at which deployment status calls are expected into the DCC to indicate the work centers are operational.	A3
Cargo & Pax Data	A summary of the cargo and passenger data expressed as the total number of passengers by ULN and PIN and short tons, measurement tons (including barrels), total square feet of bulk, oversize, outsize, and non-air-transportable cargo by ULN and CIN.	A24
Cargo Placement	A layout for how the cargo will be placed on the transporting aircraft, as approved by the Load Master.	A53
Cargo Ready Status Call-In	Units notify the DCC that the cargo has reached a specific point of preparation. This also includes the identification of increments that have been rejected, thus producing shortfalls.	A5 A52 A523 A524
CB Computation Procedure	(Center of Balance Computation Procedures) The steps used to convert the weight and measurement information into the necessary center of balance designation.	A5214 A5232
Certification Documents	(Certification Documents) The records accompanying the hazardous materials planned for loading into an aircraft. These documents certify the designated aircraft has been approved to transport the material.	A5231
Certification Signing Requirements	(Certification Signing Requirements) A definition for how a hazardous material must be documented before it can be loaded into a transporting aircraft.	A5231
Chalk Prioritization	A listing of chalks with specific cargo that must go on each chalk and the order the chalks must depart.	A24
Chalk Schedules	The latest time that each chalk can be completed to ensure loading onto the conveyance and the integration of those times ensure loading of all increments within the chalk.	A25
Chalk Status	The level of completion for a chalk.	A524

Name	Definition	Reference
Checklists & Unit Cargo Plan	(Checklists and Unit Cargo Plan) A specification of how the cargo for a UTC should be organized into increments, the characteristics that are checked to determine if the increment should enter the marshaling area for continued processing, and characteristics used to determine the acceptability of the cargo increment for loading onto the aircraft.	A5 A52
Checklists & Unit Plan	The checklists used by the various work centers within the PDF and CDF and the unit plans identifying the assigned personnel and cargo to AFSC and NSN requirements.	A0 A5
Clarification Request	A request to the MAJCOM for more detailed requirements of the UTC and mission.	A-0 A-1 A0 A2 A21
Climate Dictated UTC Adjustments	(Climate Dictated Unit Type Code Adjustments) Changes to the list of UTC items to be deployed to accommodate the weather anticipated at the mission site.	A215
Climatic Conditions	Weather conditions at the reception site that may influence the tailoring of the UTCs. These conditions would include temperature, terrain, moisture, etc.	A0 A2 A21 A215
COA	(Course of Action) This information is contained in the Battle (Course of Action) Staff Special Instructions and specifies critical base dependent information for the deployment effort. This includes the actual facilities to be used to accomplish the deployment, the changes to the normal operations of the deploying base, the definition of the threat level and the security passwords to be considered and used during the deployment.	A0 A1
Commercial Flight Materials	A set of blank forms, such as tickets, that can be used to assign commercial transportation.	A5145
Completed Cargo Increment	Increments positioned in the marshaling area and ready for loading onto the aircraft.	A523
Completed Increment	An increment built by the unit and believed to be within the necessary pallet size, weight, and configuration restrictions.	A521 A5213 A5214
Consulted Person	A deploying person who has all of his personal affairs in order and is ready to leave for the deployment.	A514 A5145
Consulting Materials	The various forms and brochures needed for the consulting-oriented workstations within the PDF.	A514 A5145
Contracted Conveyances	External transportation sources brought onto the deploying base to support the deployment operation.	A4
Contracting Agreement	An official arrangement between the deploying base and conveyance capabilities external to the deploying base.	A4
Conveyance Rules	Rules for placing cargo and personnel on specific types of transportation and the handling of sensitive and hazardous material on that type of conveyance.	A2 A24
Conveyance With Cargo	The transporting aircraft with the cargo elements positioned and ready for transport.	A53

Name	Definition	Reference
Crisis Hot Spot & Mission Requirements	The name and location where a deployment is required or being planned and the mission to be accomplished by the deploying forces.	A-1
Current Site Operations	The manner in which personnel and facilities are currently being used on the base.	A-0 A-1 A0 A1
DD Form 93	Blanks forms which emergency data can be recorded.	A5145
Deliberate Tasking	This tasking is documented in the OPLAN and is specific for each selected site and mission scenario. This plan is developed by the Wing Planners and specifies the overall requirements in terms of the unit to be deployed, the mission for each unit, and the order of deployment. The OPLAN comprises a TPFDD.	A-1
Deploy- Ready Personnel	The individuals who have processed through the PDF and are ready for loading into the transporting aircraft.	A5 A51 A53
Deployed Increments	The groupings of cargo that have been placed on the transporting aircraft.	A53
Deployed Personnel	The names of the personnel loaded into the transporting aircraft.	A53
Deployed Resources	A combination of all the personnel and cargo successfully processed through the deployment process and on the aircraft ready to leave the base.	A-1
Deployed Resources & Manifest (Personnel & Cargo)	Cargo and equipment aboard a conveyance deployed from the home base.	A-0 A-1 A0 A5 A53
Deploying Call-In	A status call-in to the DCC when cargo and passengers have completed specific milestones established in the DSOE.	A0 A5 A53
Deploying Cargo Items	The individual cargo elements identified to be included in the deployment.	A5 A52 A521 A5211
Deploying Resources	The personnel and cargo identified for deployment.	A0 A5 A51
Deployment Conditions	Factors that must be considered during the deployment effort. These factors include the political conditions of the area to which the deployment is directed; the threat conditions directed at the site performing the deployment; and the weather and geographic conditions of the receiving area.	A0 A-0 A-1

Name	Definition	Reference
Deployment Notifications	The various forms of notifications to direct, guide, or provide information on the deployment process.	A0 A-0 A-1
Deployment Objectives	The goals the base has set to attain during the deployment.	A1
Deployment Orders	Orders, such as warning orders, TPFDD, etc., issued by the competent authority to prepare forces for movement or to move forces, for instance, to increase deployability posture of units.	A0 A1
Deployment Plan	The current use of facilities, such as buildings, located on the base to which a deployment assignment has been made.	A0 A1 A2 A23
Deployment Procedure	Guidance on how to plan and execute deployment within the base.	A-0 A-1 A0 A2
Deployment Related Information & Person	(Deployment Related Information and Person) A person selected to be deployed and the person's file containing that person's deployment related information.	A514
Deployment Status	An update on the current state of the conveyance to deploy the resources, the transportation requirements to move the resources among the base to prepare for deployment, any personnel or cargo changes or shortfalls, the work centers' status, when the resources are ready to be processed through the work centers, when the resources are ready to be loaded on the conveyance, and when the conveyance is ready to leave the base with the deploying resources.	A0 A1 A2 A25
Destination & Mode	(Destination and Mode) The reception site location, and any intermediate stops, associated with the deployment.	A514
Documented HazMat Item	(Documented Hazardous Material Item) A single hazardous material item along with its shipper's documentation.	A521
DSOE	(Deployment Schedule of Events) A prioritized set of actions developed by the IDO that must be performed and completed in accordance with the dates and times specified in the SOE. The dates and times specified are defined as "no later than" dates and times.	A0 A2 A22 A25 A3 A5 A51
Eligible Person	An individual meeting the job requirements being deployed.	A514 A5145
Eligible Person With Exceptions	An individual meeting the job requirements being deployed who has a need to be consulted or provide updated information for emergencies, legal, religious, financial, and travel.	A514 A5145

Name	Definition	Reference
Emergency Update Information	(Emergency Update Information) Pertinent information that the individual being deployed revalidates and supplies current information necessary in the case of an emergency. This includes next of kin, points of contact, insurance information etc.	A5145
Equip & Personnel/ Increment ID Assignment	(Equipment and Personnel and Increment Identification Assignment) The name and social security number of each assigned qualified individual to satisfy each AFSC position, the serial number of each piece of equipment assigned to satisfy each NSN requirement, and the increments to which each piece of equipment is to be included in the UTC.	A2 A22
Equipment Shortfall	An NSN requirement of the UTC that cannot be satisfied.	A22
Event Schedule	A time-oriented list of when specific actions are to occur during the deployment process.	A4
Exe Order, LOI, SOE, Movement Flow, TPFDD	(Executive Order, Letter of Instruction, Schedule of Events, and Time-Phased Force Deployment Data) An order received by Headquarters that directs the unit to start the deployment. The LOI provides information that is specific to the deployment effort. The TPFDD contains the detailed cargo, personnel, and movement data of the deployment for each tasked unit. The SOE identifies the specific conveyance assigned to move the deploying resources along with arrival and departure times.	A0 A2
Exe Order, LOI, TPFDD	(Execution Order, Letter of Instruction, and Time-Phase Force Deployment Data) The execution order directs the unit to start the deployment. The LOIs provides unique instructions specific to the deployment. This information includes the clothes to be taken for the deployment, the shots required for the deploying personnel, etc. The TPFDD contains the detailed cargo, personnel, and movement data of the deployment for each tasked unit.	A2 A21
Execution Order	A notification to the Wing Commander, and to the IDO, which identifies specific information about the planned base deployment. This notification is very similar to the TPFDD information except that it contains only the base's deployment responsibilities.	A1
Facility & Equipment Assignments	(Facility and Equipment Assignments) A list of the buildings, runways, general areas, and base-owned equipment that could support the deployment effort, if selected, along with a description for how the facility and equipment are used during non-deployment operations.	A0 A2 A23
Final Load Plan	Developed by the Load Planner, this plan is delivered to the Load Master as a starting point for the loading of the aircraft.	A5 A52 A53
Financial Adjustments	Changes made by the individual being deployed to certain aspects of their finances.	A5145
Financial Info Requirement	(Financial Information Requirement) The list of financial changes that the individual being deployed wishes to make.	A5145
Financial Materials	Forms that can be filled out by the individual being deployed to change various aspects of the financial situation, such as a financial institution automatic deposit.	A5145
Floor Plan/ Sequence	The floor plan for each work center, along with its designated location, annotated with a detailed process sequence for each work center, and for each UTC assigned to the deployment.	A23

Name	Definition	Reference
Frustrated Cargo Status	A list of TCNs indicating which cargo elements did not pass the incheck process and are in need of additional repair or work.	A523
HazMat Approved Increment	(Hazardous Material Approved Increment) An increment containing hazardous materials that has been approved for transport aboard a specific aircraft.	A5231
HazMat Item		A521
HazMat Packing Guidelines	(Hazardous Material Packing Guidelines) The rules, which dictate how the various hazardous materials must be packed individually and how, they must be packed with respect to one another.	A5231
HazMat Placement Guidelines	(Hazardous Material Placement Guidelines) The rules for placing hazardous materials on a pallet or in a bin.	A5213
HazMat Positioning	(Hazardous Material Positioning) The placement on hazardous materials onto the increment in accordance with the designated guidelines.	A5213
HQs Assigned Transport	(Headquarters Assigned Transport) The conveyance assigned by headquarters to move deploying resources off the base.	A5
HQs Assigned Transport With Possible Cargo Information	The conveyance assigned by headquarters to move deploying resources off the base, which may already contain some cargo on it when it arrives.	A53
ID Card	(Identification Card) A card that contains personal information and data of a person identified to be deployed.	A0
Identified Resources	A generic list of resources identified to fulfill an anticipated military intervention action.	A5
Immunization Supplies	The supply of shots required for the deployment and available for administering as necessary to the personnel being deployed.	A52
In-Check Accepted Cargo Increment	A cargo increment built by a unit and successfully processed through the in-check process.	A514
In-Check Checklist		A-1
Increment C3	(Increment Center of Balance) The point within the cargo increment at which the increment can be raised and it will be balanced so as to prevent a loading danger.	A514
Increment Documentation Guidelines	Specific directions for what and how information is to be placed on the increment placard and the placard is to be placed on the increment.	A52
Increment ID	(Increment Identifier) The TCN for an increment and used to relate the increment to its assigned chalk.	A523
Increment ID to Chalk Assignment	(Increment Identification to Chalk Assignment) The list that correlates the increment ID to the chalk number to which the increment is to be included.	A524
		A523
		A5231

Name	Definition	Reference
Increment Information	(Increment Information) The identifier for the increment along with the size, weight, and center of balance for the increment.	A52 A521 A523 A5232
Increment Length, Width, & Height	(Increment Length, Width, and Height) The length, width, and height of an increment that is measured in accordance with the size computation procedures.	A5232
Increment Measurement Guidelines	The rules for determining the increment's physical characteristics that are important to assure its safe transport.	A521 A5214
Increment Measurement Procedure	The steps to be used by the UDM to accurately measure an increment.	A5214
Increment Ready Items	The designated resources ready to be placed in the increment.	A521 A5213
Increment Weighing Procedure	The steps to be followed in weighing an increment.	A5214
Increment Weight	The number of pounds contained in the cargo increment.	A5232
Increment With Weight & Size Information	(Increment With Weight and Size Information) An increment with an attached placard containing the physical characteristics of the increment.	A5214
Increment With Weight Information	(Increment With Weight Information) An increment that has been weighed as part of the unit's buildup.	A5214
Inefficient Load Plan	A processing sequence that does not make full utilization of available cabin load.	A24
Ineligible Person	A person not meeting certain criteria and therefore cannot be deployed to the reception site.	A51 A514
Ineligible Person ID	(Ineligible Person Identification) The name and identification of a person who has been found ineligible to be deployed and who must be replaced by an individual who qualifies for the same AFSC.	A51
Ineligible Person Information	(Ineligible Person Information) The name and social security number of an ineligible person that was originally proposed to satisfy an AFSC position of the UTC specified in the mission.	A22
Ineligible Person's Mobility Bags	The mobility bag of an individual who started through the PDF and was determined to be ineligible.	A51
Info & Concition Status	(Information and Condition Status) The information that must be accurate on the identification card and the criteria for judging when a card should be replaced due to its physical condition.	A514
Informed Person	An individual being deployed who has received information on the deployment location, and the various cultural issues and laws for the location.	A514
Initial Movement Plan	The correlation between anticipated movement requirements and the schedule for the movement.	A4
Inspection Checklist	A list of the increment parameters the In-Check personnel will consider when determining if an increment is ready for placement into the marshaling area.	A523 A5231
Inspection Guidelines	The criteria used by the Marshaler to determine if an increment will be placed into the chalk area or set aside for packing corrections.	A524

Name	Definition	Reference
Intra-Base Cargo Transporting Requirement	(Intra-Base Cargo Transporting Requirement) A communication to the on-base transportation focal point within the DCC defining the requirement for the movement of cargo. This request includes the type of cargo to be moved, the source and destination points, and the required pickup and drop-off times.	A5 A52 A521 A523 A524
Intra-Base Personnel Transporting Requirement	(Intra-Base Personnel Transporting Requirement) A communication to the on-base transportation focal point within the DCC defining the requirement for the movement of personnel. This request includes the number of personnel, the source and destination points, and the required pickup and drop-off times.	A5 A51
Item Documentation Procedure	The procedure specifying the information required to accurately document an item.	A5211
Item List	The identification of the resources designated to be included in the building of an increment.	A5213
Item Measured by Unit	The item that has been properly prepared, weighed, and measured by the unit.	A5211
Item Measurements From Unit	The size of an item as determined by the unit building it.	A5211
Item Packaged by Unit	A cargo item that has been properly prepared for shipment.	A5211
Item Placement Guidelines	The rules for placing non-hazardous materials on a pallet or in a bin.	A5213
Item Weighted by Unit	The item that has been properly prepared and weighed by the unit.	A5211
Item Weight From Unit	The weight of an item as determined by the unit building it.	A5211
Legal Info Update	(Legal Information Update) Information an individual would like to put in a will and the person to be assigned the power of attorney.	A5145
LIMFACS/ Shortfalls	(Limiting Factors/Shortfalls) A factor or condition that, either temporarily or permanently, impedes a mission. Examples: transportation network deficiencies; lack of in-place facilities; malpositioned forces or materiel; extreme climatic conditions, distance, transit or overflight rights; and political conditions. Shortfall--A lack of forces, equipment, personnel, materiel, or capability, apportioned to and identified as a plan requirement that adversely affects the command's ability to accomplish its mission.	A-1
List of Increments by Chalk	A listing of the increment's TCNs that have been included as part of a chalk.	A523
Load Master Checklist	A list of the conditions that the Load Master must consider to ensure the successful transport of the personnel and cargo.	A53
Load Time	The time at which the personnel are to be ready for movement to the loading site.	A51
Loading Checklist	A list of procedures to ensure all loading is conducted safely, all documentation is correct, and all personnel are performing the proper function for inspecting and loading the aircraft.	A5 A53
LOI	(Letter of Instruction) Deployment instructions that are specifically related to the mission to be accomplished at the reception site. Can come in the form of a messenger or be included as part of the Warning Order, Execute Order or Air Mobility Tasking Order. The LOI can come as a message or be included as part of the warning order, execution order, or Air Mobility Tasking order.	A0 A21 A215 A5 A51 A514

Name	Definition	Reference
LOI Dictated UTC Adjustments	(Letter of Instruction Dictated Unit Type Code Adjustments) Changes to the list of UTC items to be deployed to accommodate the information received through the LOI.	A215
MAJCOM Specified UTC	(Major Command Specified Unit Type Code) A non-standard UTC that was tailored by the MAJCOM or higher levels to account for mission needs that may not be satisfied with the standard UTC.	A21
Manifest	The official listing of the cargo elements and personnel placed into the transporting aircraft.	A53
Manifest Recording Requirements	(Manifest Recording Requirements) The guidelines for developing and presenting the final manifest of personnel and cargo loaded onto the transporting aircraft.	A53
Marshal Accepted Increment	A cargo increment ready to be placed in the appropriate chalk.	A524
Marshaling Checklist	A list of actions to be performed in the marshaling area with respect to receiving, storing, and releasing increments	A52 A524
Material & Info Requirement	(Material and Information Requirement) The material and equipment requirements for each work center and the UTC assigned to the deployment.	A23
Measured Increment	An increment ready of consideration for inclusion into the marshaling area. The consideration indicates how well the increment meets the aircraft load limitations.	A523 A5232
Measurement Procedures	The techniques designated to accurately measure the size of an increment and an item.	A5211 A523 A5232
Mission Requirements	(Mission Requirements) A statement specifying, in a general sense, the goals of the planned military operation, and scenario for using the forces requested for deployment.	A21
Mission Requirements & Site Survey Request	(Mission Requirements and Site Survey Request) A definition of the mission to be accomplished through a deployment location or base, and a request for a list of the resources available at that location that could support the mission requirements.	A-1
Mobility Bag	The standard A-3 bag being carried by a deploying individual upon arrival at the PDF.	A51
Mobility Bags	Luggage authorized for personnel tasked to deploy that contain items of clothing and equipment that are necessary for daily duties.	A5 A51 A52
Name & SSN of Proposed Person	(Name and Social Security Number of Proposed Person) The name and social security number of an eligible person recommended to satisfy an AFSC position of the UTC, along with their deployment and training history.	A22
New Force Requirement	(New Force Requirement) The identification of a resource required at the reception site, which was not previously identified.	A-1
Next of Kin & Insurance Beneficiary Information and Delivery Information	(Next of Kin, Insurance Beneficiary Information, and Delivery Information) The emergency information designated by an individual being deployed. Also, the instructions for where and to whom the information should be provided.	A5145
NSN Requirement & Quantity	(National Stock Number Requirement and Quantity) The equipment requirements, in terms of numbers of each NSN, needed to satisfy the UTC specified in the mission.	A22

Name	Definition	Reference
NSN Shortfall	(National Stock Number Shortfall) An NSN requirement of the UTC that cannot be satisfied at the unit level.	A22
Off-Base Transport Capabilities	The conveyances not associated with the deploying base assigned to move deploying personnel and cargo among sites or to the reception site.	A4
On & Off Base Transport	The various conveyances and drivers available within the deploying base and those conveyances assigned to move deploying personnel and cargo among sites or to the reception site.	A0 A4
On-Base Transport Capabilities	The various conveyances available within the deploying base.	A4
Operational Work Center	A work center that is set up with the supporting equipment.	A3
Package Approved Increment	An increment determined to be packaged correctly for safe transport.	A5231
Packed Increment	The completed placement of items such that the increment is believed ready for transport.	A5213
Packing Guidelines Increment Picture	A pictorial representation for how a specific increment should be packed to ensure consistency and safety.	A5231
Pallet Building Guidelines	The rules that must be followed when placing cargo elements on a pallet to form an increment.	A521 A5213
PAX Loading Records	(Passenger Loading Records) The personnel loaded onto an aircraft and the list of their names and information relating to them.	A53
Personnel & DRF	(Personnel and Deployment Readiness Folder) The individual being processed for deployment and the folder containing all the necessary medical and personal information.	A51 A514
Personnel & Training Requirement	(Personnel and Training Requirement) The staffing and training requirements for each work center for the UTC assigned to the deployment.	A23
Personnel Placement	A layout for how the personnel will be placed on the transporting aircraft, as approved by the Load Master.	A53
Personnel Requirement	(Personnel Requirement) The number of people required to support the operation of a deployment work center.	A3
Personnel Shortfall	An AFSC requirement of the UTC that cannot be satisfied by the assigned unit.	A22
Personnel Status Call-in	A status call-in to the DCC when personnel have completed specific milestones established in the DSOE, such as ready to transport to the PDF or to the loading area.	A5 A51
Personnel To AFSC	(Personnel To Air Force Specialty Code) The assignment of a specific person's name to an AFSC requirement for deployment.	A51
Placard Procedures	The manner in which an increment must be denoted to effectively relay the increment related information throughout the deployment process.	A523
Placement Restrictions	The rules followed in determining where a cargo increment should be placed in the marshaling area.	A524
Predefined Prioritized Assignments & Folders	A matrix identifying the primary, secondary, and tertiary resources eligible for each AFSC or NSN requirement of a standard UTC. This list includes the personnel deployment and training history.	A2 A22

Name	Definition	Reference
Preliminary Load Plan	A load plan developed by the load planner based on standard information for the specific cargo increment.	A0 A3 A5 A52 A524
Prep Checklist & Default Properties	(Preparation Checklist and Default Properties) The list of considerations the UDM must consider in preparing a cargo element and the value ranges for those parameter considerations.	A521 A5211
Prep Checklist & Unit Cargo Plan	(Preparation Checklist and Unit Cargo Plan) A specification for how the cargo for a UTC should be organized into increments.	A52 A521
Prep Guidelines	(Preparation Guidelines) The rules stating how to effectively build an increment that will be safe to move throughout the deployment process.	A5211
Prepared Cargo Increment	A cargo increment prepared by the unit and ready for transport to the in-check area.	A52 A521
Pre-Tailored UTC	(Pre-Tailored Unit Type Code) A non-standard version of this UTC that was previously tailored for these mission requirements or another mission with similar requirements.	A21
Problem Packaging	An increment returned to the unit because one or more of the items was not properly prepared and packaged.	A521 A5211
Problem Palet Build	A pallet identified somewhere in the deployment process as being unsafe to continue through the deployment process because it did not meet the necessary pallet building parameters.	A521 A5213
Problem Shippers Document	(Problem Shippers Documentation) A shippers document identified somewhere within the deployment process as being incomplete or inaccurate.	A521
Process Flow	The sequencing among the various deployment work centers necessary to efficiently and successfully accomplish the deployment.	A23
Process Initiation	The time at which the personnel from a unit are to begin processing through the PDF.	A51 A514
Process Measurement Points	A detailed schedule, including milestones, established for each chalk.	A25
Processed Personnel	Personnel who are ready for deployment but not ready for loading onto the conveyance.	A51 A514
Processing Checklist	The set of checklists that are used by the various work centers within the PDF.	A51 A514
Proposed Load Plan	A tentative load plan identifying all cargo and passengers on the chalk, where they are to be located on the chalk, and the order in which they should be loaded on the chalk.	A2 A24 A25
Reception Site Special Conditions	Specific considerations at the reception site that must be considered during the religious consultation processing.	A514 A5145
Recommended Airlift	Airlift that would optimize the processing of standard UTCs assigned for the deployment.	A24

Name	Definition	Reference
Recommended Transportation/ Schedule Changes	A recommendation to change/define the type of conveyance required to move the cargo and personnel that are to be deployed, and to refine the schedule based on the necessary conveyance.	A2 A24
Rejected Increment	An increment determined to have something sufficiently wrong to prevent it from being loaded into the transporting conveyance.	A521 A5213 A5214 A524
Religious Info Update	(Religious Information Update) Religion related issues that an individual being deployed intends to discuss.	A5145
Religious Materials	A set of religious materials that can be provided to a person being deployed.	A5145
Religious Materials & Support Reports	Religious materials taken by the deploying individual. Documents stating the status of the deployment effort. Can be verbal via radio, telephone, or runner, electronic, or manually written in a logbook or posted board.	A5145 A-0 A-1 A0 A1
Resource Availability	A listing for which resources can be used to support a base deployment.	A-1
Resource Status	A comparison between the deployment support requirements and the assignments of resources to satisfy those requirements.	A-1
Restraining Guidelines	The rules for placing netting over a pallet or closing a bin door.	A5213
Rolling Stock Increments	An increment, usually consisting of one item that is not placed on a pallet for deployment.	A5214
Rolling Stock With CB Information	(Rolling Stock With Center of Balance Information) A rolling stock increment that has the center of balance information attached.	A5214
Schedule & UTC Movement Requirement	(Schedule and Unit Type Code Movement Requirement) A time-oriented list of when specific actions are to occur during the deployment process, and the type and size of conveyances needed to move the personnel and equipment specified within the UTC designated for deployment.	A0 A4
Serial Number of Proposed Equipment	(Serial Number of Proposed Equipment) The serial number of a piece of equipment recommended to satisfy an NSN requirement of the UTC specified in the mission.	A22
Shipment Ready Items	An increment the UDM is ready to have released to the incheck process.	A521 A5211
Shortfall	A lack of forces, equipment, personnel, materiel, or capability, apportioned to and identified as a plan requirement that adversely affects the command's ability to accomplish its mission.	A2 A22
Shot Record:	An up to date listing of the person's medical shots.	A514
Site Briefing Materials	The charts used to brief the personnel being deployed.	A514
Site Set-Up Time	The time required getting a base ready to perform a deployment.	A25

Name	Definition	Reference
Site Survey information	(Site Survey Information) Information regarding the capabilities of the receiving site used to tailor a UTC.	A-0 A-1 A0 A2 A21 A215
Situation Analysis	Political conditions of both the reception and deploying sites that may influence the current base operations during the deployment.	A0 A1
Size Computation Procedures		A5232
Skill Requirement & Quantity	(Skill Requirement and Quantity) The personnel skills, in terms of numbers of each AFSC, needed to satisfy the UTC specified in the mission.	A22
SOE	(Schedule of Events) A schedule identifying no later than times for personnel/cargo deployment processing and the conveyance assigned to move them.	A2 A24 A25
SOE, TPFDD	(Schedule of Events, Time-Phased Force Deployment Data) A listing of the UTCs being deployed and the deployment schedule for the UTC. The arrival and departure schedule of a conveyance for a deploying base.	A2 A25
Special Medical Requirement	(Special Medical Requirement) The medication that needs to be administered that was not predefined for the reception site but is now needed because of the mission conditions.	A514
Specific Travel Requirement	(Special Travel Requirement) The directive for how personnel are to be transported to the reception site if it is different than standard military transport.	A514
Standard Briefing Conditions	The normal information presented as part of a deployment operation and the manner in which it is presented.	A514
Standard Consulting Conditions	The manner in which the various consultation efforts are handled.	A514 A5145
Standard Eligibility Conditions	The criteria used to determine if a person meets the standards for the deployment.	A514
Standard Medical Requirement	(Standard Medical Requirement) The medication that has been predefined for deployment to a given location.	A514
Standard UTC Data	(Standard Unit Type Code Data) Information specifying the personnel and equipment defined to comprise a UTC.	A-1
Start & Completion Times	(Start and Completion Times) The time duration for a UTC from preparation initiation until it is at the In-Check.	A25
Status of Selected Equipment	The status of equipment proposed to satisfy an NSN requirement of the UTC specified in the mission.	A22
Status Update	A call-in to the DCC reporting that transportation has been initiated based on a request from a unit.	A0 A4
Standard Equipment Requirement	(Standard Equipment Requirement) The equipment requirements for a standard work center.	A23

Name	Definition	Reference
Std Setup Times	(Standard Setup Times) The times established by the individual unit and used as the basis for scheduling the preparation and loading of a UTC.	A2
Std Space Requirement	(Standard Space Requirement) The space requirements for a standard work center.	A25
Std Staff Requirement	(Standard Staff Requirement) The personnel requirements for a standard work center.	A23
Support Personnel Availability	The list of personnel trained to perform one of more of the tasks required to support the deployment.	A23
Tailored UTC and LIMFACS/Shortfalls	(Tailored Unit Type Code and Limiting Factors/Shortfalls) All the tailored deployment requirements defined by the tasked unit and any limiting factors or shortfalls that must be sent to MAJCOM for approval or a required response.	A-0 A-1 A0 A1
Tailored UTC Person/ Equipment Requirement	(Tailored Unit Type Code Personnel and Equipment Requirement) The personnel and equipment requirements of the UTC that must be satisfied by the tasked unit.	A2 A22
TPFDD	(Time-Phased Force Deployment Data) A listing of the UTCs being deployed and the schedule for their arrival at the reception site.	A1 A21 A25
TPFDD AirFlow	(Time-Phased Force Deployment Data Air Flow) The schedule for the airflow designed to accomplish a deployment and distributed through the Air Mobility Tasking Order.	A-1
Training Requirement	(Training Requirement) The skill the augmentees must have to support the operation of a deployment work center.	A3
Transferred Transportation Requirement	(Transferred Transportation Requirement) A call that is made between the DCC's transportation focal point and the vehicle controller in response to a movement request.	A4
Transport Ready Cargo & Information	(Transport Ready Cargo and Information) A cargo increment placed appropriately in the chalk with the necessary increment information attached.	A5 A52 A524 A53
Transport Request	A request presented to base transportation for the movement of cargo or personnel from one place to another. This request is given in terms of the source and destination; type, quantity, specific characteristics of the resources to be moved; and the time at which the move must be completed.	A0 A4 A5
Transportation Means	The conveyances and drivers assigned to move deploying resources.	A0 A-0 A-1
Travel Authorization	The paper work, which specifies the travel necessary for the deploying person.	A514
Travel Requirement	(Travel Requirement) The specification for which individuals will travel on commercial conveyances.	A514 A5145
Troop Commander Packet With Manifest	A list of the personnel being transported on the aircraft along with other critical information such as the hazardous materials and their locations in the aircraft.	A5145

Name	Definition	Reference
Unaccepted Cargo Increment	A cargo increment determined not to meet the inspection criteria, thus making the increment unsafe to load onto a conveyance.	A52 A521 A523 A5231
Unit Cargo Plan	The way in which a unit has planned to prepare and pack the cargo contained in its assigned UTC.	A521
Unit Delivered Increment With ID	(Unit Delivered Increment With Identifier) The cargo increment delivered to the in-check area with its chalk and increment number assigned.	A52 A523 A5231
Unit Deployment Requirements	(Unit Deployment Requirements) All the tailored deployment requirements that must be satisfied by the tasked unit in order to meet the specific mission.	A2 A21 A215 A23
Unit ID	(Unit Identifier) The unique identifier for the unit that is to satisfy a UTC requirement.	A2 A25
Unit Load Ready Call-In	A phone call made informing the DCC that the personnel are ready for transport to the loading area.	A51
Unit Personnel Plan	The assignment of a specific individual to an AFSC requirement for deployment and the set of checklists that are used by the various work centers within the PDF.	A5 A51
Unit Prep Completion Time	(Unit Preparation Completion Time) The time contained within the DSOE, which specifies when the unit personnel are to be ready to be transported from the unit to the PDF.	A51
Unit Prep Time	(Unit Preparation Time) The time stated in the DSOE by which the unit must report to the DCC that their deploying resources are ready.	A521
Unit Prepared Personnel	The personnel identified for deployment and prepared to be transported to the PDF.	A51
Unit Ready Call-In	A call to the DCC stating that the unit personnel are ready to be transported to the PDF.	A51
Updated ID Card	(Updated Identification Card) A personal identification card that is in good shape and contains accurate information.	A514
Updated Person & Records	(Updated Person and Records) An individual being deployed who has received all the necessary shots and their medical records depict an accurate representation of their medical status.	A514
UTC Level 2	(Unit Type Code Level 2) The tailored UTC requirements expressed as the number of passengers, short tons, and measured tons expressed as bulk, oversized, and non-air transportable cargo for the tailored UTC to be deployed.	A2 A23 A24
UTC Level 4	(Unit Type Code Level 4) Detailed data expressed with the number of passengers by AFSC code by ULN and PIN and individual dimensional data length, width, height, and Center Balance (CB) of cargo by equipment type (individual NSN) by ULN and detailed by priority of shipment.	A21 A215

Name	Definition	Reference
UTC List Changed by Climatic Conditions	(Unit Type Code List Changed by Climatic Conditions) The resulting UTC list after being changed as based on the weather conditions at the mission site.	A215
UTC List Changed by LOI Requirements	(Unit Type Code List Changed by Letter of Instruction Requirements) The resulting UTC lists after being changed based on the LOI information.	A215
UTC/UIC	(Unit Type Code/Unit Identification Code) A 6-character alphanumeric designator that uniquely identifies each unit. A UTC identifies a combat capability to include the UTC code, title, MISCAP, and manpower and equipment detail. UTC packages consist of A, B, and C records. The A record provides the UTC title and the five character code, the B record provides the MISCAP statement, and the C record provides the manpower skill detail (grade and AFSC) within the UTC. A UTC becomes standard when it is registered in MEFPAC and entered in the TUCHA file, which is contained in the JOPES database and contains complete movement characteristics. The UTC provides the baseline for unit deployment, unit readiness reporting which is derived from SORTS, and support force planning. (Unit Identification Code) A six-character alphanumeric code that uniquely identifies each Active, Reserve, and National Guard unit of the Armed Forces tasked to provide the capabilities of the UTC.	A21
UTC-to-Unit Assignments	(Unit Type Code-to-Unit Assignments) The identification of a specific unit selected to satisfy the need for an operational capability as specified by the UTC identifier.	A0 A5 A51
Warning Order	A notice to the Command Post that the base may be receiving a deployment or execute order.	A1
Weighing Procedures	The techniques used to accurately weigh a cargo increment or item.	A5211 A5232
Will, Power of Attorney, & Delivery Directions	A Will and/or Power of Attorney signed by a person being deployed and the instructions for who should receive copies of these documents and the addresses of these individuals.	A5145
Work Center Completed Status	A deployment function that is fully equipped, has the supporting supplies, and is ready to do its part of the deployment process.	A3
Work Center Definition	The layout and equipment listing for a work center.	A3
Work Center Definition & Location	(Work Center Definition and Location) The name of the work center indicating the type of processing performed at the work center and the physical location at which the work center is positioned.	A0 A2 A23 A25 A3 A5 A51 A52
Work Center Equipment	(Work Center Equipment) The typewriters, desks, chairs, etc. used to support the operation of a work center.	A3

Name	Definition	Reference
Work Center Material/Information Requirements	(Work Center Material and Information Requirements) A list of the forms, handouts, etc. that is required at each work center.	A3
Work Center Materials	The materials used within the Personnel Deployment Function to accomplish the deployment. These materials include blank identification cards, blank dog tags, medications, etc.	A0 A3 A5 A51 A514
Work Center Resources	The materials needed to prepare and support the deployment process.	A0 A3
Work Center Requirement	(Work Center Requirements) The appropriate number of deployment functions required to meet the UTC's requirements.	A23
Work Center Status Call-in	A call into the DCC stating that the work center is operational.	A0 A3
Work Centers	A specific site that has been set up and manned to perform a specific operation or step within the deployment process.	A0 A3
World Environment	The information received and evaluated to determine the requirements for actual and anticipated deployments.	A-1

LOG-AID AS-IS MECHANISM GLOSSARY

Role	Description
Build Team	The group of individuals responsible for preparing an increment by placing and fastening the items correctly.
CALM	(Computer-Aided Load Manifesting) The computer program used to determine how the increments could be loaded into the aircraft to assure flight safety.
CAT	(Crisis Action Team) Command and staff personnel assembled to respond to war, and certain contingency or emergency situations that require continuous actions. Its purpose is to provide continuous response during periods of increased readiness and expanded operations. Also called a Battle Staff.
Chaplin	An individual located in the PDF during a deployment effort to provide spiritual support to those leaving for a deployment.
CMOS	(Cargo Movement and Operation System) The AF system that automates base shipment processes and serves as the source data system essential to maintain visibility of cargo and passenger movement.
Command Post (Manned by a Wing Commander representative)	The base location in which the Battle Staff is present during a deployment.
COMPES	(Contingency Operations/Mobility Planning and Execution System) The AF subsystem of JOPES that operations, logistics, and personnel planners at all command levels use to develop and maintain force packages and task requirements for operation plan time-phased force and deployment data.
Consulting Personnel	A group of individuals within the PDF responsible for supporting the personal needs of deploying individuals. This group includes the personnel to document the names of personnel to be notified in case of emergency, legal representatives, the chaplain, financial personnel, and the travel agent.
DCC Staff	(Deployment Control Center Staff) The personnel located in the DCC during a deployment and responsible for the coordination of the base deployment.
DeMS	(Deployment Management System) An automated system designed to meet the deploying unit's need to identify and select personnel and equipment resources to meet tasking requirements.
Emergency Data Personnel	The augmentee personnel within the PDF responsible for documenting the Emergency Data Card (DD93).
Financial Personnel	A support person located in the PDF responsible for helping deploying personnel arrange for the receipt of their paycheck and all financial matters that must be arranged.
IDO	(Installation Deployment Officer) The host-unit officer who maintains base deployment guidance and directs and coordinates base deployment under the direction of the installation commander.
InCheck Personnel	The people responsible for verifying the accuracy of an increment buildup by the unit and before it is placed in the marshaling area.
Installation Commander Staff & Tools	The team of people and their support tools responsible for analyzing the deployment requirements and developing the course of action for their base. This team is also responsible for interacting with the Head Quarters concerning LIMFACS and Shortfalls.
Legal Personnel	The individual within the PDF responsible for satisfying the legal requirements of those deploying.

Role	Description
Load Master	The individual responsible for ensuring the cargo and personnel are loaded onto his aircraft in accordance with guidance so as to ensure flight safety.
Load Planner	The individual responsible for determining how the personnel and cargo included in a chalk is to be positioned in the conveyance.
Log Planner	(Logistics Planner) The Logistics Planner works with the IDO to direct and supervise the deployment activities and define the organizational structure to meet all command and control, cargo preparation, and personnel preparation deployment requirements.
LOGFOR	(Logistics Force Packaging System) is a COMPES subsystem that provides equipment & materiel requirements & summarized transportation characteristics through its LOGDET component.
LOGMOD-3	(Logistics Module-Base Level) A COMPES software program that base-level planners use to aid deployments. Equipment and cargo information. Manpower & Personnel Module -- Base Level -- Base level automated capabilities in COMPES that support operation, contingency, deployment and exercise planning, readiness, & execution responsibilities. Computer-Aided Load Manifesting -- An AF system that automates load planning.
LOGPLAN	(Logistics Planning Subsystem) The automated part of the LOGMOD-B, a COMPES software package, that planners use in building detailed materiel data equipment requirements to support OPLANs for different deployment capabilities.
MANPER	(Manpower and Personnel Module) The combined automated capabilities, existing at various levels of command in COMPES that support operation, contingency, deployment and exercise planning, readiness, & execution responsibilities.
MANPER-B	(Manpower and Personnel Module - Base Level) The base-level version of the automated capabilities in COMPES that support operation, contingency, deployment and exercise planning, readiness, & execution responsibilities.
Manpower Marshaler	The organization responsible for tracking all manpower information on a base. The person responsible for storing and safeguarding the prepared cargo, organized by chalk, until it is ready for loading.
PDF Personnel & Equipment	(Personnel Deployment Function Personnel and Equipment) The personnel and equipment used within the PDF during the processing of personnel being deployed.
Personnel & Systems	A general name used to represent all the individuals and supporting equipment required to accomplish a deployment effort.
RAMPCO	(Ramp Coordinator) The person responsible for all activities on the flight line such as moving cargo, and loading and unloading the aircraft.
READY	(Resource Augmentation Duty) A program requiring each installation to identify and validate its own temporary augmentation and local resource needs to meet deployment requirement.
SBSS	(Standard Base Supply System) An automated inventory accounting system that provides on-line support for all supply transactions.
SORTS	(Status of Resources and Training System) A system used to track the readiness level of units to determine which units can satisfy the UTC requirements, as described in their DOC statement.

Role	Description
TCU	(Transportation Control Unit) The on-base organization responsible for controlling all air traffic into and out of the base and all on-base vehicles and equipment.
TMO	(Transportation Management Office) The on-base organization responsible for providing contracted vehicles and equipment to move personnel and cargo within the base during a deployment.
Transportation's DCC focal point	(Transportation's Deployment Control Center focal point) The individual, positioned in the DCC, acting as the intermediary between the deploying units and the transportation equipment required to support their deployment.
Travel Agent	A person positioned in the PDF and responsible for generating tickets on commercial transportation as necessary.
Troop Commander	Deploying individual traveling as part of a chalk who has been selected primarily because rank to take charge of the chalk, and especially the personnel until they are returned to the control of their unit commander at the reception site.
UDM	(Unit Deployment Manager) Individual in charge of preparing a unit for deployment.
Wing Commander	The Wing Commander oversees all staff activities in support of deployment.

APPENDIX C

LOG-AID AS-IS DATA MODEL AND GLOSSARY

LOG-AID AS-IS DATA MODEL

The LOG-AID As-Is Data Model (DM) is a logical representation of the information used by and produced by the functions within the wing-level deployment process and documents the relationship between data elements.

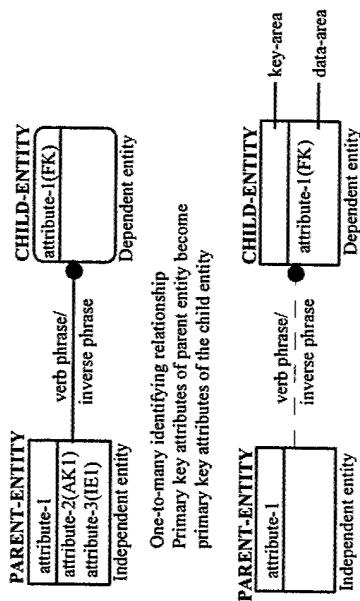
This appendix contains the IDEFIX graphical representation of the model. Figure C-1 contains a quick reference to IDEFIX notation. The complete model is presented on a single page. This contains all the entities with their associated attributes and the relationships between them.

In order to facilitate understanding and review of the DM, the entities are subdivided into broad classes of information types called subject areas. The attributes in each entity were examined to evaluate what type of information was represented. Then entities with similar types of information were grouped. By examining the classes of information represented, five major subject areas emerged: PLANS, CAPABILITY, MATERIAL, PERSON, and ACTION.

The entities that represent the key data in the subject area and the entities that are related to these entities are displayed in each subject area. Because the entities that are related to the subject area are included on a diagram, an entity may exist in more than one subject area. Table C-1 contains a list of the subject areas diagrams on which the entities appear. A narrative that provides a general discussion of the subject area is presented on the page facing each subject area diagram.

IDEF1X NOTATION CONVENTIONS

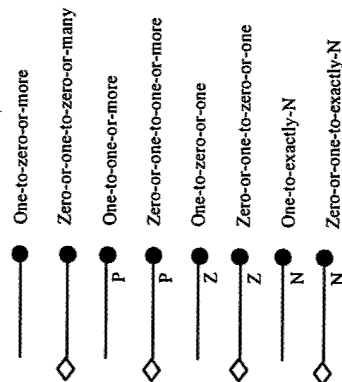
ENTITY & RELATIONSHIP NOTATION



ATTRIBUTE NOTATION

attribute (FK)	Foreign Key Primary key of another entity contributed by a relationship
role-name.attribute (FK)	Role name New name for foreign key connoting its use
attribute (AKn)	Alternate key Alternate unique identifier of the entity
attribute (IEn)	Inversion entry Non-unique access identifier of the entity
role-name.(c1,c2,c3)	Group Attribute Attribute is a group containing the listed constituents

CARDINALITY NOTATION



CATEGORY NOTATION

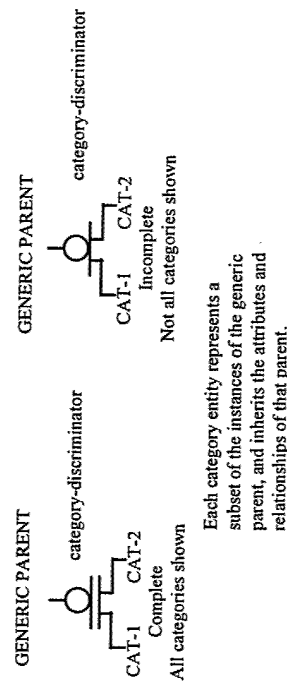


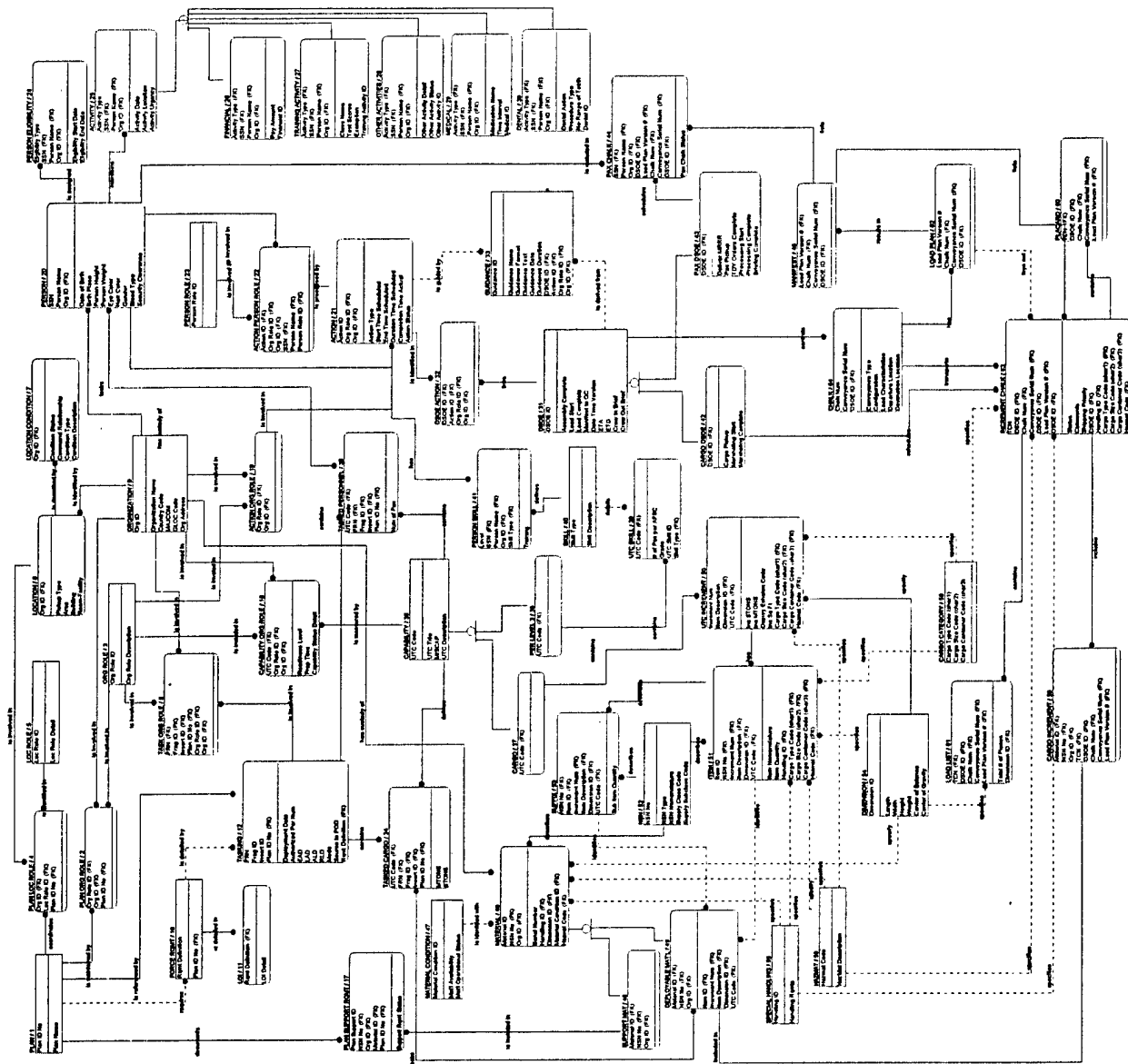
Figure C-1. Entity vs. Subject Area Matrix

Table C-1. Entity vs. Subject Area Matrix

Entity Name	Subject Area Name	Entity Name	Subject Area Name
ACTION	ACTION	LOCATION	PLAN
ACTION	PERSON	LOCATION CONDITION	PLAN
ACTION ORG ROLE	ACTION	LOI	PLAN
ACTION PERSON ROLE	ACTION	MANIFEST	ACTION
ACTION PERSON ROLE	PERSON	MANIFEST	PERSON
ACTIVITY	PERSON	MATERIAL	CAPABILITY
CAPABILITY	CAPABILITY	MATERIAL	MATERIAL
CAPABILITY	PLAN	MATERIAL CONDITION	MATERIAL
CAPABILITY ORG ROLE	CAPABILITY	MEDICAL	PERSON
CAPABILITY ORG ROLE	PLAN	NSN	CAPABILITY
CARGO	CAPABILITY	NSN	MATERIAL
CARGO	PLAN	ORG ROLE	PLAN
CARGO CATEGORY	MATERIAL	ORGANIZATION	MATERIAL
CARGO DSOE	ACTION	ORGANIZATION	PLAN
CARGO INCREMENT	MATERIAL	OTHER ACTIVITIES	PERSON
CHALK	ACTION	PAX CHALK	ACTION
DENTAL	PERSON	PAX CHALK	PERSON
DEPLOYABLE MAT'L	MATERIAL	PAX DSOE	ACTION
DIMENSION	MATERIAL	PAX DSOE	PERSON
DSOE	ACTION	PER LEVEL 3	CAPABILITY
DSOE ACTION	ACTION	PER LEVEL 3	PLAN
FINANCIAL	PERSON	PERSON	PERSON
FORCE RQMT	PLAN	PERSON ELIGIBILITY	PERSON
GUIDANCE	ACTION	PERSON ROLE	PERSON
HAZMAT	MATERIAL	PERSON SKILL	PERSON
INCREMENT CHALK	ACTION	PLACARD	MATERIAL
INCREMENT CHALK	MATERIAL	PLAN	PLAN
ITEM	CAPABILITY	PLAN LOC ROLE	PLAN
ITEM	MATERIAL	PLAN ORG ROLE	PLAN
LOAD LIST	MATERIAL	PLAN SUPPORT RQMT	PLAN
LOAD PLAN	ACTION	SKILL	CAPABILITY
LOC ROLE	PLAN	SKILL	PERSON
LOCATION	MATERIAL	SPECIAL HANDLING	MATERIAL

Table C-1. Entity vs. Subject Area Matrix (cont'd)

<i>Entity Name</i>	<i>Subject Area Name</i>
SUFFIX	CAPABILITY
SUFFIX	MATERIAL
SUPPORT MAT'L	MATERIAL
TASK ORG ROLE	PLAN
TASKED CARGO	CAPABILITY
TASKED CARGO	PLAN
TASKED PERSONNEL	CAPABILITY
TASKED PERSONNEL	PLAN
TASKING	PLAN
TRAINING ACTIVITY	PERSON
UTC INCREMENT	CAPABILITY
UTC INCREMENT	MATERIAL
UTC SKILL	CAPABILITY



PLANS

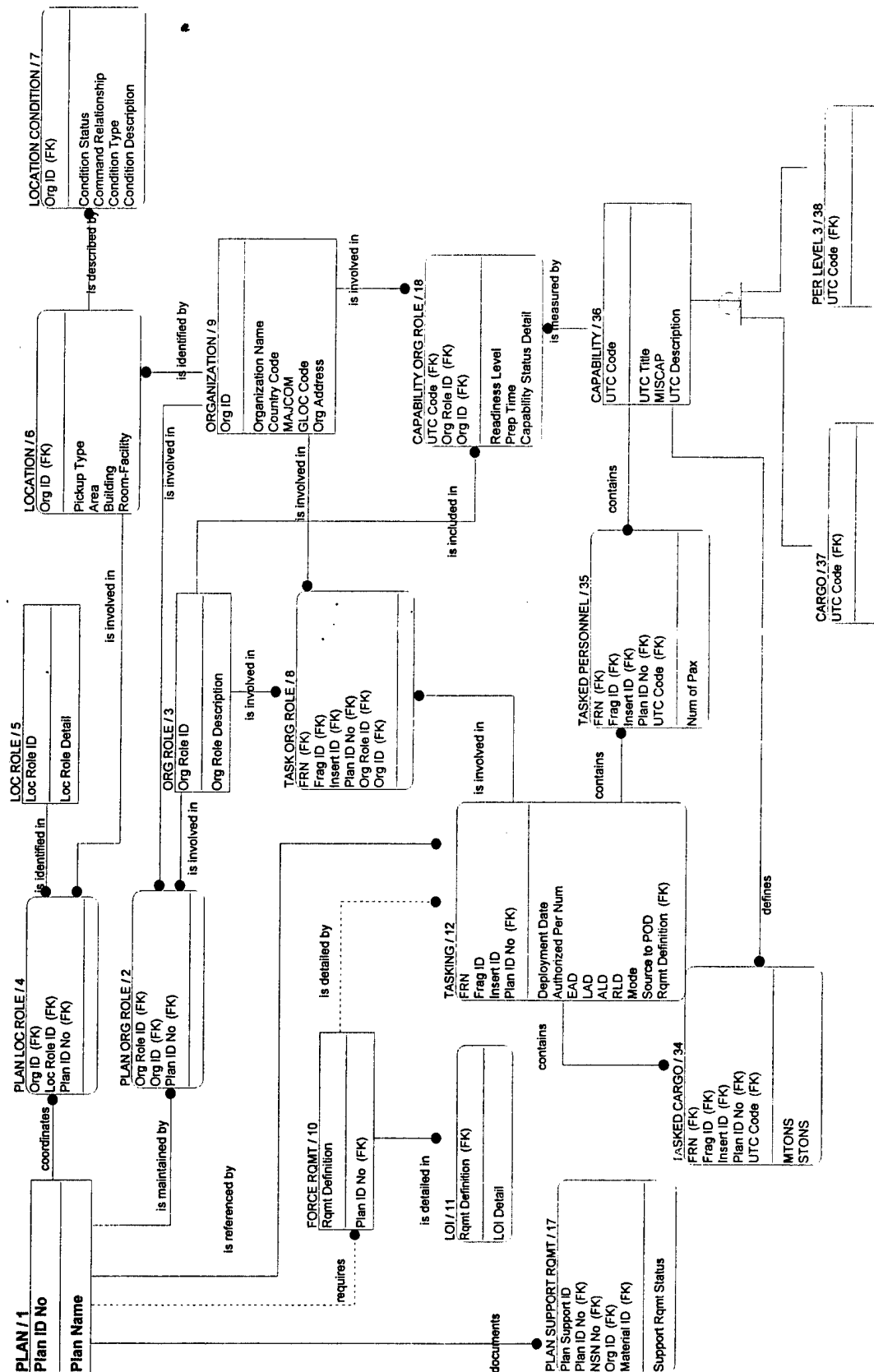
The PLANS subject area contains those data elements that represent the operations for deploying units to prepare for movement or increase their deployability posture.

The PLAN details the conduct of the operations. The plan identifies a FORCE RQMT to fulfill the mission objectives. The forces and supplies needed to accomplish those objectives are identified in the TASKING, along with the movement schedule of the resources to the theater of operations. The Letter of Instruction (LOI) identifies any specific instructions unique to the deployment. Each unit line number of the TASKING references a CAPABILITY. The TASKED CARGO and TASKED PERSONNEL may identify the variations in the tasking from the standard UTC CAPABILITY. Each CAPABILITY contains detail about CARGO and personnel, PER LEVEL 3.

Each base develops a mobility plan contained in PLAN SUPPORT RQMTs, which detail how the base should operate if they were tasked to support that PLAN.

Each PLAN references many LOCATIONS in its operations. The LOC ROLE defines the roles each location may assume. The PLAN LOC ROLE identifies the specific role that LOCATION plays within the PLAN, such as a base may be identified in the PLAN as the forward operating location or a port of embarkation. The LOCATION CONDITION provides detail about each specific location, such as the information identified in a base support plan or by an ADVON team.

The PLAN also identifies many ORGANIZATIONS in its operations. Each ORGANIZATION can assume many different roles, which are depicted in ORG ROLE. The role identified for an ORGANIZATION in the PLAN is depicted in the PLAN ORG ROLE, such as a unit may be identified as the host unit in the PLAN. The TASKED ORG ROLE identifies the organizations and the role they play in the TASKING, such as the unit may be identified as deploying a fragmented UTC in the TASKING.



CAPABILITY

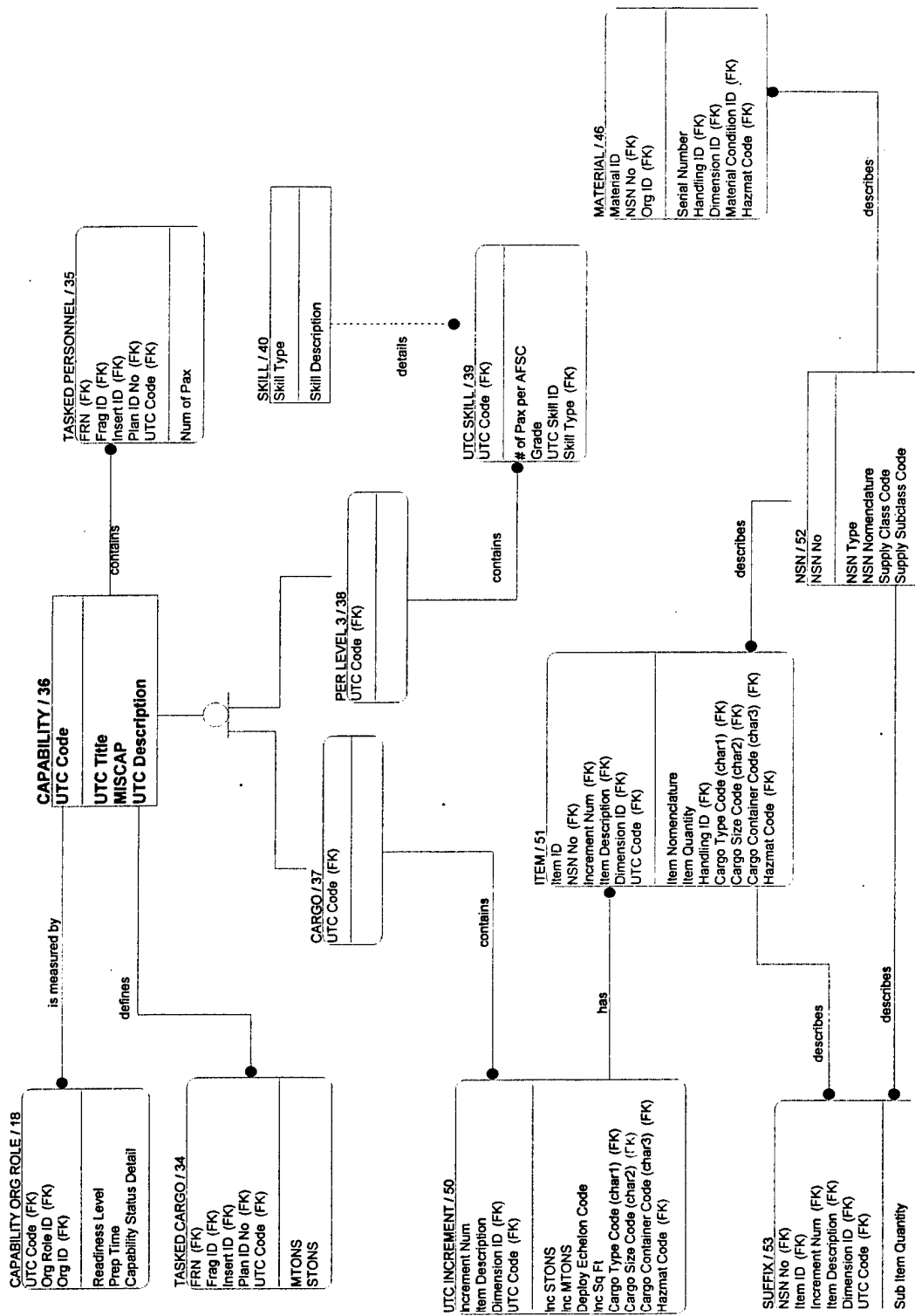
The CAPABILITY subject area contains those data elements that represent a specific type of mission capability.

The CAPABILITY identifies a specific UTC, which defines a specific mission capability and is detailed by the CARGO and personnel, PER LEVEL 3, needed to accomplish that capability. Different ORGANIZATIONS (shown in the complete model) are assigned a role in the CAPABILITY. This is identified in the CAPABILITY ORG ROLE, which details their relationship, such as a lead unit, follow-on unit, etc., and their unit readiness level or their ability to provide all or portions of the defined CAPABILITY.

When tasked to satisfy a specific CAPABILITY, typically the standard is tailored to mission, reception site, and environmental conditions. This is depicted in the TASKED CARGO and TASKED PERSONNEL entities.

The equipment, supplies, and spare parts considered CARGO are detailed into separate UTC INCREMENTS, which serve as the primary method for organizing material for deployment. This UTC INCREMENT provides a means to establish a sequence for movements, a reference point for tailoring, and a standardization among units with like weapon systems. The UTC INCREMENT may contain one or more ITEMS which are identified in supply through an NSN. An ITEM may contain SUFFIX items, which are also identified in supply through an NSN. For example, a toolbox may be an ITEM, but may it contain many tools (SUFFIX items) within that toolbox.

The number of personnel required for a CAPABILITY is documented through PER LEV 3. This list purely consists of the number of people in the UTC. The personnel requirements are then broken down by number of people with a specific AFSC and a specific skill, documented in UTC SKILL.



MATERIAL

The MATERIAL subject area contains all those data elements that represent equipment, supplies and spare parts that are deployed or support the deployment effort.

Every piece of equipment, supply, or spare parts is documented in the entity MATERIAL. MATERIAL is categorized as those that are deployed, DEPLOYABLE MAT'L, and those that support the deployment effort, SUPPORT MAT'L, such as MHE. Each MATERIAL has a MATERIAL CONDITION, which documents its status and maintenance requirements. Each MATERIAL belongs to an ORGANIZATION, such as a unit, base supply, etc. and can be found at a specific LOCATION.

Each piece of MATERIAL has an NSN identified with it, DIMENSIONS associated with it, a HAZMAT if it is hazardous material, and any SPECIAL HANDLING requirements. When tasked to be deployed, a piece of DEPLOYABLE MAT'L may be linked to an ITEM or a SUFFIX in a UTC INCREMENT. A UTC INCREMENT will have a CARGO CATEGORY CODE assigned to it, which identifies shipping requirements such as its type, size and shipping container restrictions.

Once the UTC INCREMENT has been tailored to list exactly what is to be deployed and on which chalk it is to be transported, it is considered an INCREMENT CHALK. An INCREMENT CHALK contains DEPLOYABLE MAT'L which is listed in the CARGO INCREMENT entity. This list is documented in the LOAD LIST. The LOAD LIST will document characteristics about the INCREMENT CHALK such as a HAZMAT Codes and CARGO CATEGORY CODEs. A PLACARD is attached to the INCREMENT CHALK which contains information about it, along with an assigned TCN for tracking purposes.

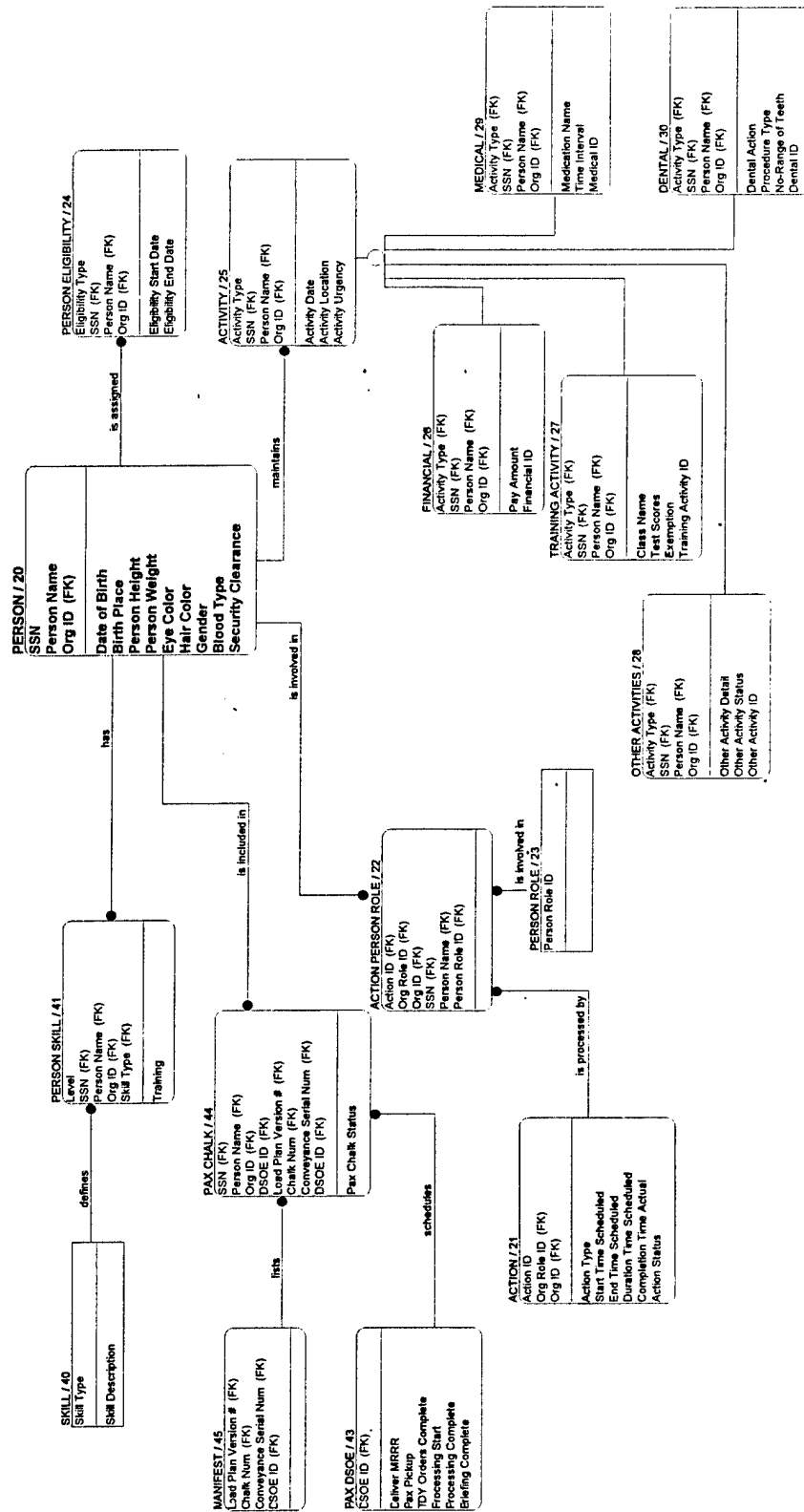
PERSON

The PERSON subject area contains all those data elements that represent information about the people that are being deployed and support the deployment effort.

Each PERSON has many different individual characteristics. A PERSON may have several SKILLs within their abilities which are documented in PERSON SKILL. Their eligibility for deployment is documented in PERSON ELIGIBILITY. All the information about activities and personal preferences are documented in the ACTIVITY and categorized by MEDICAL information, DENTAL information, FINANCIAL information, TRAINING information, and all OTHER ACTIVITIES, such as legal, religious, etc.

A PERSON may be responsible for many ACTIONS and have specific roles, PERSON ROLE, in those actions. The roles (PERSON ROLES) they play in each of those ACTIONS are depicted in the ACTION PERSON ROLE entity. For example, a PERSON may be assigned the role of augmentee for the ACTION of CDF in-check.

One of the ACTION PERSON ROLES for a person can be tasked in a deployment. The PERSON will be assigned to a specific CHALK, which is documented in PAX CHALK. The MANIFEST contains the list of all those PERSONs assigned to the CHALK. The PAX DSOE schedule sequences the requirements or milestones for specific actions for PERSONs to perform for each CHALK.



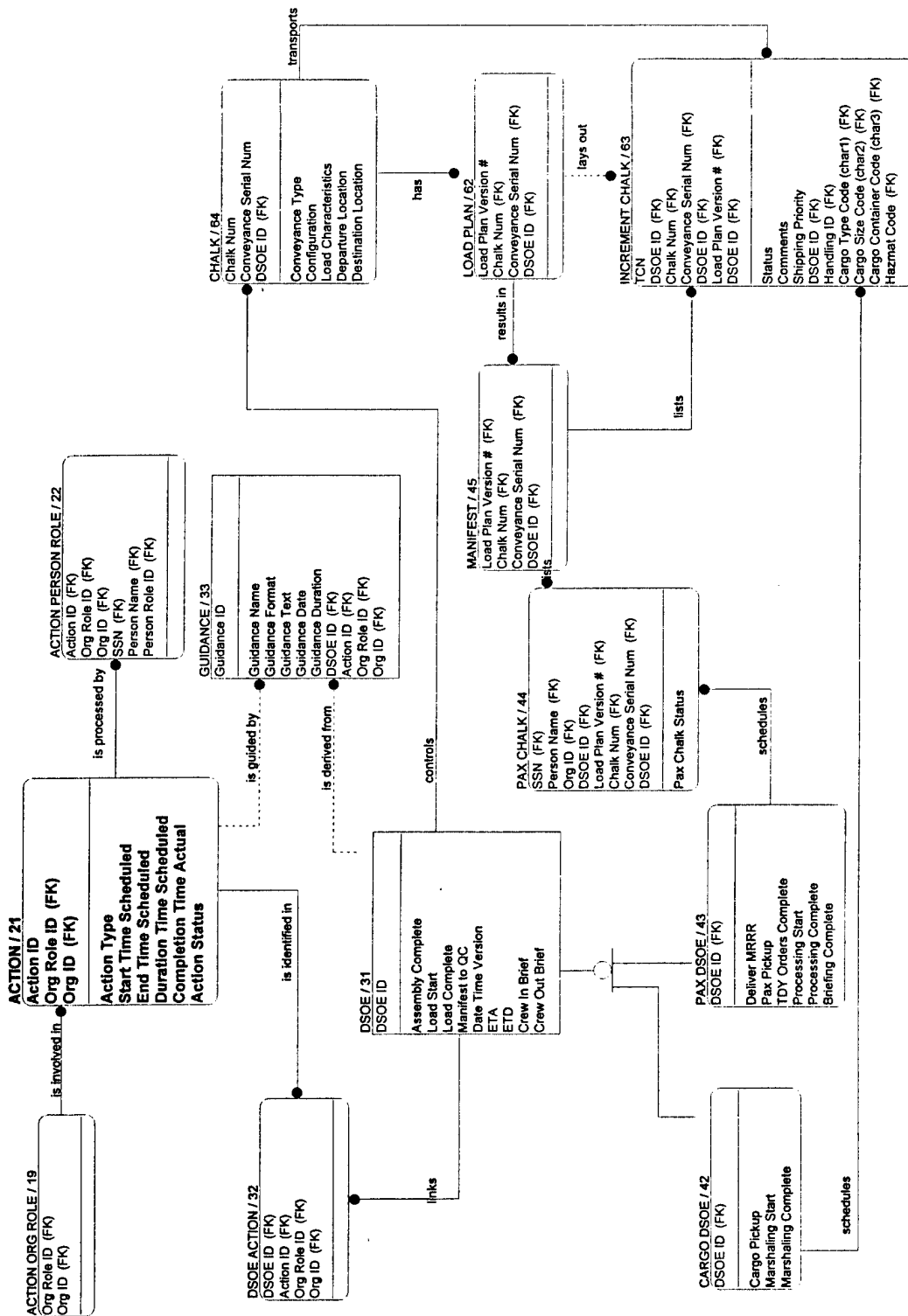
ACTION

The ACTION subject area contains those data elements that represent different activities which occur within the deployment process.

ACTION defines the milestone and the timing requirements of the activity. The ACTION ORG ROLE identifies specific ORGANIZATIONS and the roles they play in the ACTION. For example a unit may be identified to perform the role of transportation in a deployment ACTION. ACTION PERSON ROLE identifies the people and the roles they play in the action. For example, a PERSON may be assigned the role of a UDM in a deployment ACTION.

An ACTION may be regulated by GUIDANCE, such as how to document something, how to pack something, how long something should take, the resource requirements that should be consumed, the conditions that must be established for implementation, etc.

The DSOE identifies milestones for equipment, CARGO DSOE, personnel, and PAX DSOE. The DSOE ACTION identifies each ACTION with the DSOE. A DSOE is developed for each CHALK, or conveyance that is to move resources off the base. The INCREMENT CHALK documents each UTC INCREMENT on the CHALK, and the PAX CHALK documents all the passengers on the chalk. The LOAD PLAN details the layout for each INCREMENT CHALK on the CHALK, and the MANIFEST lists all the CARGO INCREMENTS identified in the LOAD PLAN, along with the number of passengers on the chalk.



LOG-AID AS-IS DATA GLOSSARY

This appendix contains the LOG-AID Data Glossary for the As-Is Data Model (DM). The glossary is divided into three columns: (1) the name, which is the DM entity or attribute name, (2) the definition of the item, and (3) the DM reference. The names of the entities are in all capitals. The names of the attributes are in all lowercase. Definitions may include comments further explaining the item and providing examples. The names of associative entities are expanded by naming each of the entities that are being associated with an "X" between them to denote the intersection of these entities.

NAME	DEFINITION	REFERENCE
ACTION	All activities, both those supported by automated systems and those performed manually, involved in the deployment process.	Entity
Action ID	The action identifier is the unique identifier for a record of a specific action.	Attribute of ACTION
Action Type	The type and name of a performed action.	Attribute of ACTION
Start Time Scheduled	The time at which the action is scheduled to start.	Attribute of ACTION
End Time Scheduled	The time at which the action is scheduled for completion.	Attribute of ACTION
Duration Time Scheduled	The length of time in which the entire action should occur.	Attribute of ACTION
Completion Time Actual	The actual time the action was completed.	Attribute of ACTION
Action Status	The status of the action, including any problems, and corrective issues.	Attribute of ACTION
ACTION ORG ROLE	(ACTION x ORGANIZATION x ROLE) An association among an action, the organization, and the organizational role the organization has in the action.	Entity
ACTION PERSON ROLE	(ACTION x PERSON x ROLE) An association among an action, the person, and the role the person has in the action.	Entity
ACTIVITY	The various functions that are performed to keep personnel records current.	Entity
Activity Type	The type of activity that the person is performing which results in an update of their records.	Attribute of ACTIVITY
Activity Date	The date the activity is performed.	Attribute of ACTIVITY
Activity Location	The location where the activity is performed.	Attribute of ACTIVITY
Activity Urgency	The priority or urgency of the requirement for the activity. COMMENTS: For example, if a person is tasked to deploy and must have specific training, the priority would be very high to have that completed before the date of the deployment.	Attribute of ACTIVITY
CAPABILITY	A mission capability that can be provided by a specific force package of defined technical sophistication of the forces' units, weapon systems, and equipment with the sustainability of those forces, units, and weapon systems.	Entity
UTC Code	A 5 character alphanumeric designator that uniquely identifies the capability.	Attribute of CAPABILITY
UTC Title	The unit type code title.	Attribute of CAPABILITY
MISCAP	The mission capability defines the type and amount of workload the force is capable of accomplishing.	Attribute of CAPABILITY
UTC Description	Pertinent information such as the type of base where commanders will deploy, the unit's functional activities, and other augmentation requirements, including type and amount, necessary to conduct specific missions.	Attribute of CAPABILITY

NAME	DEFINITION	REFERENCE
CAPABILITY ORG ROLE	(CAPABILITY x ORGANIZATION x ROLE) An association among a capability and an organization and the role the organization plays in the capability. COMMENTS: For example, this could identify an organization and a UTC and the organization plays the role of the pilot unit in the UTC.	Entity
Readiness Level	The ability of the forces, units, and weapon systems to deliver the designated capability.	Attribute of CAPABILITY ORG ROLE
Prep Time	The length of time in which the organization requires to be at the readiness level they stated for the capability.	Attribute of CAPABILITY ORG ROLE
Capability Status Detail	Any further detail on the status of the organization and their ability to provide the capability.	Attribute of CAPABILITY ORG ROLE
CARGO	Equipment, supplies, and spare parts identified in a UTC.	Category Entity of CAPABILITY
CARGO CATEGORY	Descriptive codes assigned to cargo according to their characteristics and properties.	Entity
Cargo Type Code (char1)	A code referencing type of cargo, such as HazMat, chemical, ammunition, etc.	Attribute of CARGO CATEGORY
Cargo Size Code (char2)	A code referencing the size of the cargo, such as bulk, oversized, outsized, non-air transportable, etc.	Attribute of CARGO CATEGORY
Cargo Container Code (char3)	A code referencing the container requirements such as organic vehicles, container 20 ft and 20 STONS or less, non containerable, etc.	Attribute of CARGO CATEGORY
CARGO DSOE	A portion of a DSOE, which identifies all the milestones for the cargo on one chalk.	Category Entity of DSOE
Cargo Pickup	The latest time at which the cargo for a chalk must be picked up at the unit.	Attribute of CARGO DSOE
Marshaling Start	The latest time at which the marshaling of the cargo for a chalk must be started.	Attribute of CARGO DSOE
Marshaling Complete	The latest time at which the marshaling of cargo for a chalk must be completed.	Attribute of CARGO DSOE
CARGO INCREMENT	The deployable material that is packaged into an increment that will be transported to the reception site on the designated chalk.	Entity
CHALK	A specific conveyance that has been assigned to transport resources from the deploying location.	Entity
Chalk Num	This is a sequential identifier for each chalk that is transporting resources from the deploying base.	Attribute of CHALK
Conveyance Serial Num	The serial number of the specific conveyance that is designated as the chalk.	Attribute of CHALK

NAME	DEFINITION	REFERENCE
Conveyance Type	The type of conveyance that is assigned as the chalk, such as aircraft, ship, truck, etc.	Attribute of CHALK
Configuration	The unique configuration of the specific conveyance.	Attribute of CHALK
Load Characteristics	Any special loading requirements for the conveyance.	Attribute of CHALK
Departure Location	The location the conveyance is to depart from.	Attribute of CHALK
Destination Location	The final destination for the conveyance.	Attribute of CHALK
DENTAL	Activities related to a person that is associated with dental.	Category Entity of ACTIVITY
Dental Action	The name of the dental activity.	Attribute of DENTAL
Procedure Type	The type of dental procedure that was performed.	Attribute of DENTAL
No-Range of Teeth	The identification of the specific teeth the dental procedure was performed on.	Attribute of DENTAL
Dental ID	A unique identifier for the dental record.	Attribute of DENTAL
DEPLOYABLE MAT'L	Equipment, supplies and spare parts that are considered deployable and may be deployed from the home station to another location.	Category Entity MATERIAL
DIMENSION	Specific parameters about material, items, increments, etc.	Entity
Dimension ID	A unique identifier for the dimension record.	Attribute of DIMENSION
Length	The length of the material, item, or increment.	Attribute of DIMENSION
Width	The width of the material, item, or increment.	Attribute of DIMENSION
Height	The height of the material, item, or increment.	Attribute of DIMENSION
Weight	The weight of the material, item, or increment.	Attribute of DIMENSION
Center of Balance	The center of balance of the material, item, or increment.	Attribute of DIMENSION
Center of Gravity	The center of gravity of the material, item, or increment.	Attribute of DIMENSION
DSOE	The Deployment Schedule of Events is a prioritized set of actions that must be completed. All dates and times are specified as "no later than" dates and times.	Entity
DSOE ID	A unique identifier for the DSOE record.	Attribute of DSOE
Assembly Complete	The latest time at which all the unit's resources must have completed preparation at the unit.	Attribute of DSOE
Load Start	The latest time the loading of the chalk must be started.	Attribute of DSOE
Load Complete	The latest time the loading of the chalk must be completed.	Attribute of DSOE
Manifest to QC	The latest time the manifest of cargo and people must be to quality control for review.	Attribute of DSOE
Date Time Version	The date, the time, and the version number of the DSOE.	Attribute of DSOE
ETA	The estimated time of arrival of the conveyance to the deploying base.	Attribute of DSOE

NAME	DEFINITION	REFERENCE
ETD	The estimated time of departure for the conveyance from the deploying base.	Attribute of DSOE
Crew In Brief	The latest time at which the crew in-brief must be started.	Attribute of DSOE
Crew Out Brief	The latest time at which the crew out-briefs must be started.	Attribute of DSOE
DSOE ACTION	(DEPLOYMENT SCHEDULE OF EVENTS x ACTION) The association between actions in the deployment process and those identified in the DSOE.	Entity
FINANCIAL	Activities related to personal information that is financially associated.	Category Entity of ACTIVITY
Pay Amount	The amount of pay a person is currently scheduled to receive.	Attribute of FINANCIAL
Financial ID	A unique identifier to the financial record of a person.	Attribute of FINANCIAL
FORCE RQMT	The force requirement is a specific mission that must be accomplished.	Entity
Rqmt Definition	The numbers, size, and composition of defense forces needed to accomplish a mission.	Attribute of FORCE RQMT
GUIDANCE	The rules, laws, procedures, and technical assistance that govern and aid defense-related processes, including the deployment process. COMMENTS: For example, military regulations and instructions.	Entity
Guidance ID	The guidance identifier is the unique identifier of a record of guidance.	Attribute of GUIDANCE
Guidance Name	The name of the guidance material.	Attribute of GUIDANCE
Guidance Format	The format of the guidance material.	Attribute of GUIDANCE
Guidance Text	Textual information that is used in the guidance material. COMMENT: For example, how to document Hazmat, how to compute the center of balance, conditions for replacement of ID card, etc.	Attribute of GUIDANCE
Guidance Date	The date of the latest release of the guidance material.	Attribute of GUIDANCE
Guidance Duration	Estimated duration times for specific actions. COMMENTS: For example, standard set-up times for a work center, time for a unit to prepare cargo, standard ground time for an aircraft, etc.	Attribute of GUIDANCE
HAZMAT	Information regarding specific cargo that is considered hazardous material. COMMENT: For example, flammable liquids and solids, oxidizing materials, corrosive materials, radioactive material, etc.	Entity
Hazmat Code	The specific code that correlates the material with the type of hazard it contains or is consisted of.	Attribute of HAZMAT
HazMat Description	A description of the kind of hazardous material.	Attribute of HAZMAT
INCREMENT CHALK	The association between CARGO INCREMENT and CARGO DSOE. It contains a list of the increments that are identified in the DSOE to be shipped on the chalk.	Entity

NAME	DEFINITION	REFERENCE
Status	The status of the preparation and processing of each of the increments on the designated chalk.	Attribute of INCREMENT CHALK
Comments	Any additional comments about the condition, location, etc. of the increment and its processing.	Attribute of INCREMENT CHALK
TCN	The Transportation Control Number is assigned to a specific increment to be used in tracking by the transportation community.	Attribute of INCREMENT CHALK
Shipping Priority	The priority for shipping the increment. For example, some maintenance items must be at the reception site before an aircraft in order to service the aircraft when it arrives.	Attribute of INCREMENT CHALK
ITEM	An item is the next level of breakdown of what is stored on an increment. For instance, an increment may contain 10 items. A piece of rolling stock can be considered an increment and an item. Therefore, that increment contains one item.	Entity
Item ID	The unique identifier for a record of an item.	Attribute of ITEM
Item Nomenclature	Textual information about the item.	Attribute of ITEM
Item Quantity	The number of the same item that are in the same increment.	Attribute of ITEM
LOAD LIST	A detailed list of items and associated information on an increment.	Entity
Total # of Pieces	The total number of items on an increment.	Attribute of LOAD LIST
LOAD PLAN	A detailed description of the layout of the conveyance and where each increment should be positioned on the conveyance.	Entity
Load Plan Version #	The version number of the specific load plan.	Attribute of LOAD PLAN
LOC ROLE	(LOCATION x ROLE) The association between a location and the roles that location may play.	Entity
Loc Role ID	The location role identifier is the unique identifier for a record of location role.	Attribute of LOC ROLE
Loc Role Detail	Textual information regarding the role the location may assume.	Attribute of LOC ROLE
LOCATION	A specific physical site at which organizations reside and assets are stored.	Entity
Pickup Type	The type of pickup that would be required for transportation. COMMENTS: For example, passengers may be picked up from a separate entrance compared to where cargo would be picked up.	Attribute of LOCATION
Area	The area on the complex in which the location can be found.	Attribute of LOCATION
Building	The building number or name of the location.	Attribute of LOCATION
Room Facility	The room number or facility name of the location.	Attribute of LOCATION

NAME	DEFINITION	REFERENCE
LOCATION CONDITION	Information regarding the status of the location. This would be where information from the BSP and ADVON team would be found.	Entity
Command Relationship	The MAJCOM the location is under command.	Attribute of LOCATION CONDITION
Condition Type	The type of condition for the report. COMMENTS: For example, maps, civil engineering information, services available, medical capabilities, WRM, munitions, security, contracting, weather, etc.	Attribute of LOCATION CONDITION
Condition Description	Detailed data about the condition type.	Attribute of LOCATION CONDITION
Condition Status	Any status relevant to the condition type.	Attribute of LOCATION CONDITION
LOI	The Letter of Instruction provides deployment instructions that are specifically related to the mission to be accomplished at the reception site. COMMENTS: For example, the LOI may require the personnel to carry their weapons at their side during transport, so they are immediately available upon arrival at the reception location.	Entity
LOI Detail	Detailed information about the instructions.	Attribute of LOI
MANIFEST	The manifest contains a list of the increments and passengers on the chalk, along with the load plan of the chalk.	Entity
MATERIAL	Every piece of equipment, supplies, and spare parts and belongs to an organization.	Entity
Material ID	The unique identifier for a record of material.	Attribute of MATERIAL
Serial Number	The unique serial number of the piece of material, if it has one.	Attribute of MATERIAL
MATERIAL CONDITION	Information regarding the condition, availability, status, and maintenance requirements of a piece of material.	Entity
Material Condition ID	The material condition identifier is the unique identifier for the record.	Attribute of MATERIAL CONDITION
Mat'l Availability	Information regarding the availability of the material.	Attribute of MATERIAL CONDITION
Mat'l Operational status	Information regarding the status of the operations of the material and its maintenance requirements.	Attribute of MATERIAL CONDITION
MEDICAL	Activities related to personnel that are associated with their medical history and requirements.	Category Entity of ACTIVITY

NAME	DEFINITION	REFERENCE
Medication name	The name of the medication prescribed or given to the person.	Attribute of MEDICAL
Time Interval	The time interval between necessary medications. COMMENTS: For example, the time between required shots.	Attribute of MEDICAL
Medical ID	The medical identifier is the unique identifier for the medical record.	Attribute of MEDICAL
NSN	The National Stock Number is the catalogued identifier for an item of material.	Entity
NSN No	The specific national stock number.	Attribute of NSN
NSN Type	The type or category of item.	Attribute of NSN
Nomenclature	The name assigned to the specific national stock number.	Attribute of NSN
Supply Class Code	The supply class code for the NSN in the supply system.	Attribute of NSN
Supply Subclass Code	The supply subclass code for the NSN in the supply system.	Attribute of NSN
ORG ROLE	The roles an organization can assume.	Entity
Org Role ID	The organization role identifier is the unique identifier for a record.	Attribute of ORG ROLE
Org Role Description	A description of the role an organization can assume.	Attribute of ORG ROLE
ORGANIZATION	An administrative structure with a mission, both government and non-government. COMMENTS: Organizations may contain suborganizations. For example, a base may contain wings, a wing may contain groups, a group may contain squadrons, and a squadron may contain flights.	Entity
Org ID	The organization identifier is the unique identifier for a record of an organization.	Attribute of ORGANIZATION
Organization Name	The unique name of the organization.	Attribute of ORGANIZATION
Country Code	The country in which the organization is located.	Attribute of ORGANIZATION
MAJCOM	The Major Command in which the organization is assigned.	Attribute of ORGANIZATION
GLOC	The geographic location of the organization.	Attribute of ORGANIZATION
Org Address	The specific address of the organization.	Attribute of ORGANIZATION
OTHER ACTIVITIES	Activities related to personnel that are associated with functions other than finance, medical, dental, and training. COMMENTS: For example, legal, emergency data, religious requirements, etc.	Category Entity of ACTIVITY
Other Activity Detail	Information regarding the type of activity and the implementation.	Attribute of OTHER ACTIVITIES
Other Activity Status	Information about the status of the action.	Attribute of OTHER ACTIVITIES
Other Activity ID	The other activity identifier is a unique identifier for a record of the other activity.	Attribute of OTHER ACTIVITIES

NAME	DEFINITION	REFERENCE
PAX CHALK	The passengers that are assigned to a specific chalk and will be documented in the manifest.	Entity
Pax Chalk Status	The status of the preparation and processing of each passenger.	Attribute of PAX CHALK
PAX DSOE	A level of a DSOE, which identifies all the milestones for the passengers on one chalk.	Category Entity of DSOE
Deliver MRRR	The latest time at which each unit must deliver the Mobility Requirements/Resource Roster to the PDF.	Attribute of PAX DSOE
Pax Pickup	The latest times at which the passengers must be picked up at the unit and transported to the PDF.	Attribute of PAX DSOE
TDY Orders	The latest time at which all the TDY orders for all the passengers must be completed.	Attribute of PAX DSOE
Processing Start	The latest time at which the processing of the passengers through the PDF must start.	Attribute of PAX DSOE
Processing Complete	The latest time at which the processing of the passengers through the PDF must be completed.	Attribute of PAX DSOE
Briefing Complete	The latest time at which the passengers must have completed their briefings.	Attribute of PAX DSOE
PER LEVEL 3	A level of the CAPABILITY which details the UTC by total number of passengers (Level I, Level II, and Level III)	Category Entity of CAPABILITY
PERSON	A human being for whom information is maintained.	Entity
SSN	The Social Security Number of the person.	Attribute of PERSON
Person name	The name of the person.	Attribute of PERSON
Date of Birth	The date of birth of the person.	Attribute of PERSON
Birth Place	The place of birth of the person.	Attribute of PERSON
Person Height	The height of the person.	Attribute of PERSON
Person Weight	The weight of a person.	Attribute of PERSON
Eye Color	The eye color of a person.	Attribute of PERSON
Hair Color	The hair color of a person.	Attribute of PERSON
Gender	The sex of a person.	Attribute of PERSON
Blood Type	The blood type of a person.	Attribute of PERSON
Security Clearance	The security clearance of a person.	Attribute of PERSON
PERSON ELIGIBILITY	The ability of a person to meet certain eligibility requirements.	Attribute of PERSON
Eligibility Type	The criteria for measuring eligibility.	Entity
Eligibility Start Date	The beginning date necessary for the person to meet the criteria.	Attribute of PERSON ELIGIBILITY

NAME	DEFINITION	REFERENCE
Eligibility End Date	The end date when the person must be eligible to meet the criteria.	Attribute of PERSON ELIGIBILITY
PERSON ROLE	The various roles a person can assume throughout different phases of the process.	Entity
Person Role ID	The unique identifier for the record of the type of role a person can assume.	Attribute of PERSON ROLE
PERSON SKILL	(PERSON x SKILL) The associative entity relating a person to the types of skills the person may have.	Entity
Level	The skill level of the person.	Attribute of PERSON SKILL
Training	The training completed to achieve the skill level and the time interval for which a skill qualification is valid.	Attribute of PERSON SKILL
PLACARD	The identification attached to an increment used by transportation to track in-transit visibility.	Entity
PLAN	A scheme for achieving an end over time. COMMENTS: For example, an OPLAN, designed for the conduct of military operations, identifies one or more operations that units carry out simultaneously or in a series of connected stages.	Entity
Plan ID No	The plan identifier number is the unique identifier for the record of the particular plan	Attribute of PLAN
Plan Name	The name of the plan.	Attribute of PLAN
PLAN LOC ROLE	(PLAN x LOCATION x ROLE) This is the associative entity between the plan and a location identified in the plan and the role the location will assume for the plan.	Entity
PLAN ORG ROLE	(PLAN x ORGANIZATION x ROLE) This is the associative entity between the plan and an organization identified in the plan and the role that organization will assume for the plan.	Entity
PLAN SUPPORT RQMT	This is the document that identifies how an organization would support a plan. COMMENTS: For example, a base deployment plan would fall into this entity.	Entity
Plan Support ID	The plan support identifier is the unique identifier for the record of this plan.	Attribute of PLAN SUPPORT RQMT
Support Rqmt Status	Any details on the development of the support requirements.	Attribute of PLAN SUPPORT RQMT
SKILL	Basic proficiencies required to accomplish defense-related workloads. Includes both proficiency in a trade or following a given method.	Entity
Skill Type	The name used to identify the various personnel skills.	Attribute of SKILL
Skill Description	A detailed description of the skill.	Attribute of SKILL

NAME	DEFINITION	REFERENCE
SPECIAL HANDLING	The various special handling requirements that may be attached to certain cargo.	Entity
Handling Rqmts	The name and description of the special handling requirement.	Attribute of SPECIAL HANDLING
Handling ID	The handling identifier is the unique identifier code that is assigned to the cargo when it requires special handling.	Attribute of SPECIAL HANDLING
SUFFIX	A lower level detail of pieces of equipment, supplies or spare parts that may be gathered together and considered an item. Items may be joined together and considered an increment. This is used in the detailed decomposition of cargo in a UTC capability.	Entity
Sub Item Quantity	The number of subitems that are joined together into the item.	Attribute of SUFFIX
SUPPORT MAT'L	Support material included equipment, supplies, and spare parts that are used to support the deployment, but do not deploy. COMMENTS: For example, MHE such as a K-Loader may be considered support material.	Category Entity of MATERIAL
TASK ORG ROLE	(TASK x ORGANIZATION x ROLE) This is the associative entity between the tasking and the organization identified in the tasking and the role the organization assumes in the tasking. COMMENTS: For example, the organization may be identified as the unit to deploy.	Entity
TASKED CARGO	The tasked cargos are the tailored cargo requirements of the UTC. Rather than deploy a standard UTC, the cargo may be tailored due to environmental reasons, mission requirements, reception site capabilities, a fragmented order, etc.	Entity
MTONS	The total measured tons of the cargo tasked to deploy.	Attribute of TASKED CARGO
STONS	The total number of short tons of the cargo tasked to deploy.	Attribute of TASKED CARGO
TASKED PERSONNEL	The tasked personnel are the tailored personnel requirements of the UTC. Rather than deploy a standard UTC, the number of personnel may be adjusted due to mission requirements, reception site capabilities, a fragmented order, etc.	Entity
Num of Pax	The number of people that are needed to deploy with the UTC.	Attribute of TASKED PERSONNEL
TASKING	The time phased force deployment data contains the time-phased force data, the non-unit related cargo and personnel data, and movement data for the plan.	Entity

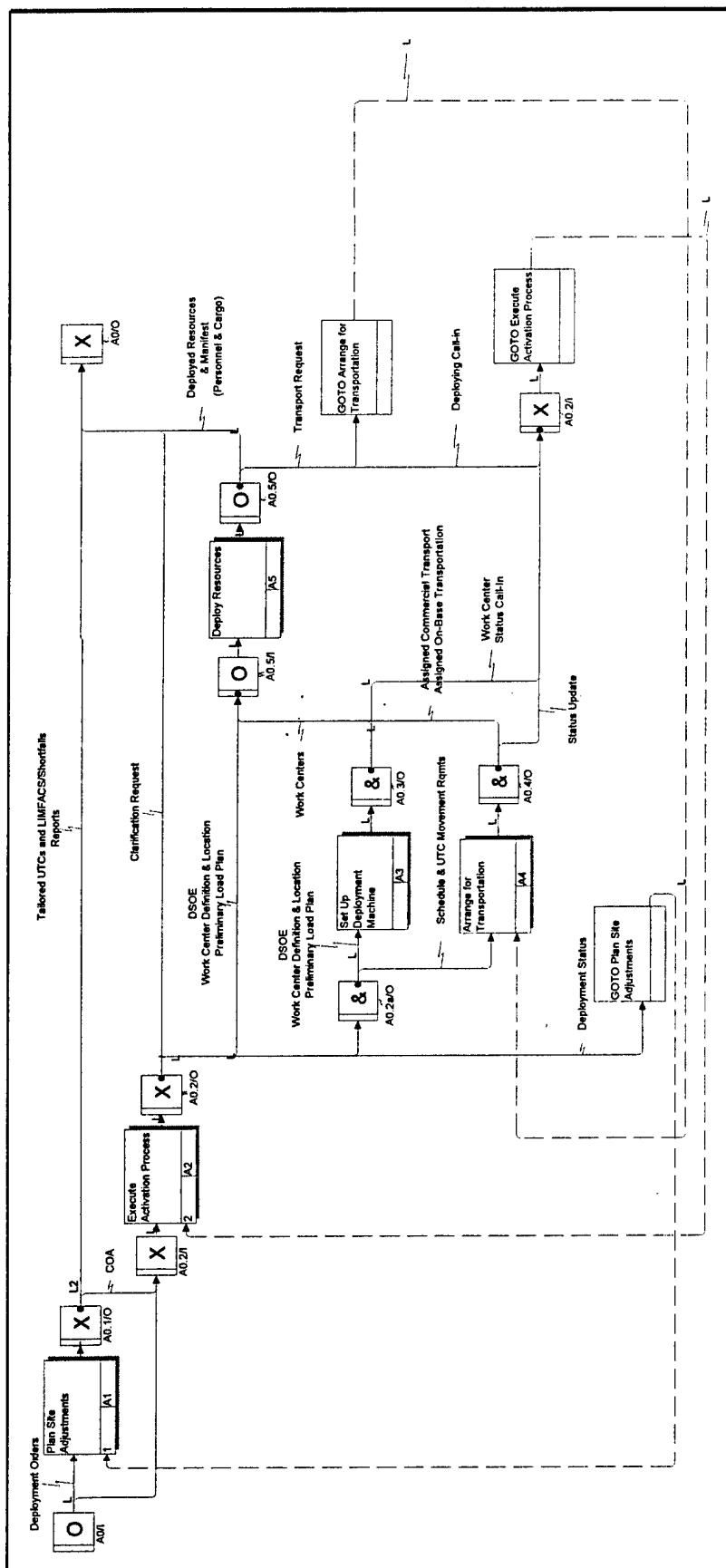
NAME	DEFINITION	REFERENCE
FRN	The Force Requirement Number is a five character alphanumeric code used to uniquely identify force entries in the TPFDD. The first two characters identify the theater of operation. The five characters make up the first five of seven characters in the unit line number (ULN).	Attribute of TASKING
Frag ID	A single character used to identify elements of a force deploying in more than one increment. Makes up the sixth position of the ULN.	Attribute of TASKING
Insert ID	A single character code used to further identify elements of a force deploying in two or more increments. Makes up the seventh (and last) character of the ULN.	Attribute of TASKING
Deployment Date	The date the unit identified in the TPFDD is scheduled to start deploying their forces off the home station.	Attribute of TASKING
Authorized Per Num	The Authorized personnel number is the number of passengers to be deployed plus the number of crewmembers of the aircraft.	Attribute of TASKING
EAD	The earliest arrival date for when the deployed forces or replacement personnel can be accepted at a port of debarkation during a deployment. Used in conjunction with the LAD to define a delivery window for transportation planning.	Attribute of TASKING
LAD	The latest arrival date for when the deployed forces should arrive at the port of debarkation and support the concept of operations.	Attribute of TASKING
ALD	The available load date is the date in the TPFDD when equipment and forces can begin loading on an aircraft or ship at the port of embarkation.	Attribute of TASKING
RLD	The ready to load date is when the forces should be prepared to depart their origin on organic transportation or are prepared to begin loading on USTRANSCOM furnished transportation.	Attribute of TASKING
Mode	The type of conveyance that will be used to transport the forces from the home station.	Attribute of TASKING
Source to POD	The source of the transportation for the unit resources to the port of debarkation, which may be a seaport or aerial port. The POD may or may not coincide with the final destination.	Attribute of TASKING
TRAINING ACTIVITY	Activities related to personal information that is associated with the training of the person.	Category Entity of TRAINING
Class name	The name of the training course the person attended.	Attribute of TRAINING ACTIVITY
Test Scores	The scores and ranking of the person's results from the training.	Attribute of TRAINING ACTIVITY
Exemption	Any exemptions the person may have acquired for the training requirements.	Attribute of TRAINING ACTIVITY

NAME	DEFINITION	REFERENCE
Training Activity ID	The training activity identifier is the unique identifier for the training record.	Attribute of TRAINING ACTIVITY
UTC INCREMENT	The Unit Type Code increment identifies the arrangement of equipment, supplies, and spare parts to support the cargo side of the deployment capability. The increments are used for planning purposes.	Entity
Increment Num	The number of the increment assigned to the UTC capability.	Attribute of UTC INCREMENT
Item Description	A description of the increment of the UTC capability	Attribute of UTC INCREMENT
Inc STONS	The total short tons that comprise the increment.	Attribute of UTC INCREMENT
Inc MTONS	The total measurement tons that comprise the increment.	Attribute of UTC INCREMENT
Deploy Echelon Code	The deployment echelon codes are used to establish priorities and sequencing of movement of increment.	Attribute of UTC INCREMENT
Inc Sq Ft	The total square footage of the increment of the UTC capability.	Attribute of UTC INCREMENT
UTC SKILL	The further level of detail of the personnel requirements of a UTC capability.	Entity
# of Pax per AFSC	This identifies the number of passengers by Air Force specialty code.	Attribute of UTC SKILL
Grade	This identifies if a rank requirement must be assigned to an AFSC requirement.	Attribute of UTC SKILL
UTC Skill ID	The UTC skill identifier is the unique identifier of the record of UTC skill requirements.	Attribute of UTC SKILL

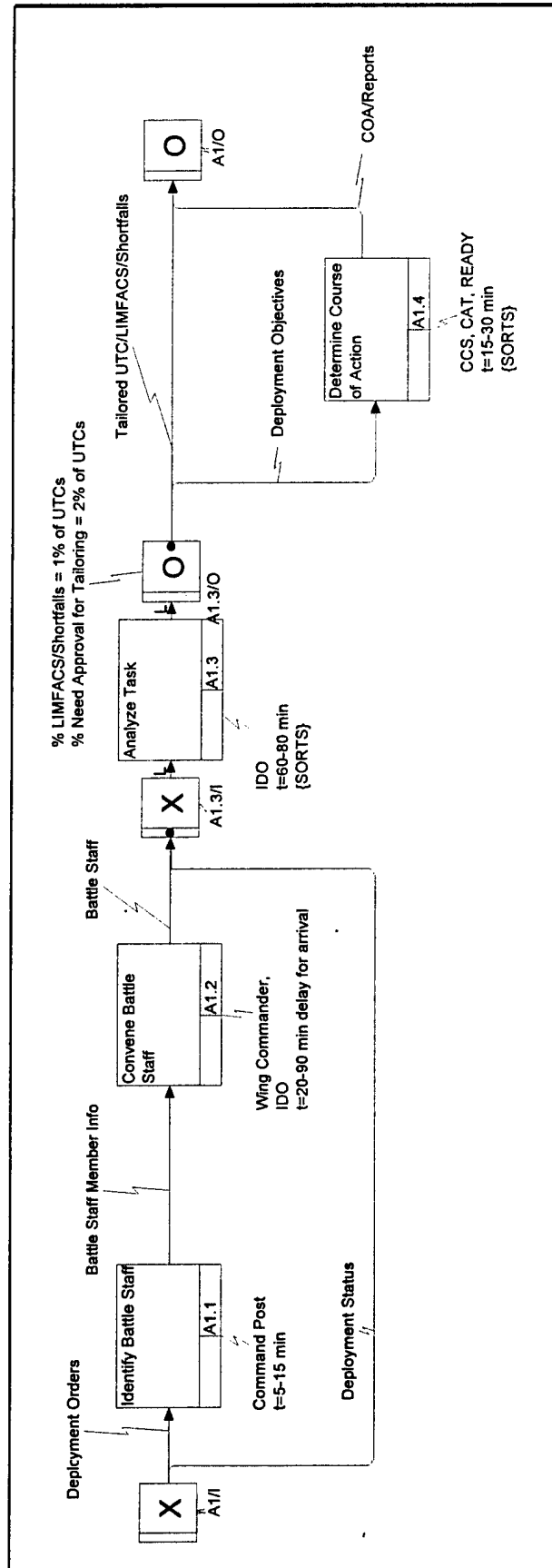
APPENDIX D

LOG-AID AS-IS PROCESS MODEL

Node Number	Process Name	Output/Product	Description	Time to Complete (in minutes)	Frequency of Occurrence	Exceptions/ Rules Variation Factors	Resource
A0.1	Plan Site Adjustments	COA	By analyzing the deployment tasking and mapping the deployment operational requirements to the status of available resources, the battlestaff defines the base functionality during the deployment. The battlestaff will send all the tailored deployment requirements and any limiting factors and shortfalls to the MAJCOM for approval or response. Various reports of the base operations and deployment efforts must be sent to the higher-level authorities.	See Decomposition			Base Commander Staff & Tools
		Tailored UTC and LIMFACS/ Shortfalls Reports					Battlestaff
A0.2	Establish Act'n Process	DSOE	A Deployment Schedule of Events is developed to identify the deployment activities to be performed by each deploying unit and the sequencing of those activities.	See Decomposition			Battlestaff
		Deployment Status	The IDO keeps the Battlestaff informed of the current state of the deployment effort, including any problems, shortfalls, or limiting factors.				IDO Log Plans
		Clarification Request	Sometimes a request is sent to MAJCOM for more information regarding tasking requirements and UTCs.				IDO,
		Preliminary Load Plan	Each chalk must be defined with which increments and passengers will be included and how they will be loaded.				COMPES
		Work Center Definition & Location	With the base facilities allocated, and the processing activities and sequencing established, the layout design and implementation of the deployment work centers is initiated.				Load Plans, CALM, COMPES
A0.3	Set Up Deployment Machine	Work Centers	Teams of augmentees are brought in to both set up and operate the defined work centers in accordance with the schedule.	See Decomposition			IDO, Log Plans
		Work Center Status Call-In	When the work center becomes operational, they will inform the DCC with a call.				Base Personnel
		Augmentee Call-In	The necessary augmentees are identified from the augmentee list and notified to report to an augmentee preparation work center.				READY
A0.4	Arrange for Transportation	Assigned On-Base Transportation	The transportation within the base is established to ensure the necessary transportation is available when needed to support the deployment process.	See Decomposition			Trans
		Assigned Commercial Transport	The transportation within the base is contracted to ensure the necessary transportation is available when needed to support the deployment process.				Trans, Contracting
A0.5	Deploy Resources	Status Update Deployed Resources & Manifest	The DCC is notified when transportation has been initiated. All tasked personnel and cargo are identified and processed for deployment.	See Decomposition			Trans
		Transport Request	Transportation is requested to move cargo and personnel from a source to a destination location, including the type, quantity, and specific characteristics of the resources to be moved, and deadline for the movement.				Base Personnel
		Deploying Call-In	The DCC is notified when the cargo and personnel processing have completed specific milestones established in the DSOE.				Base Personnel

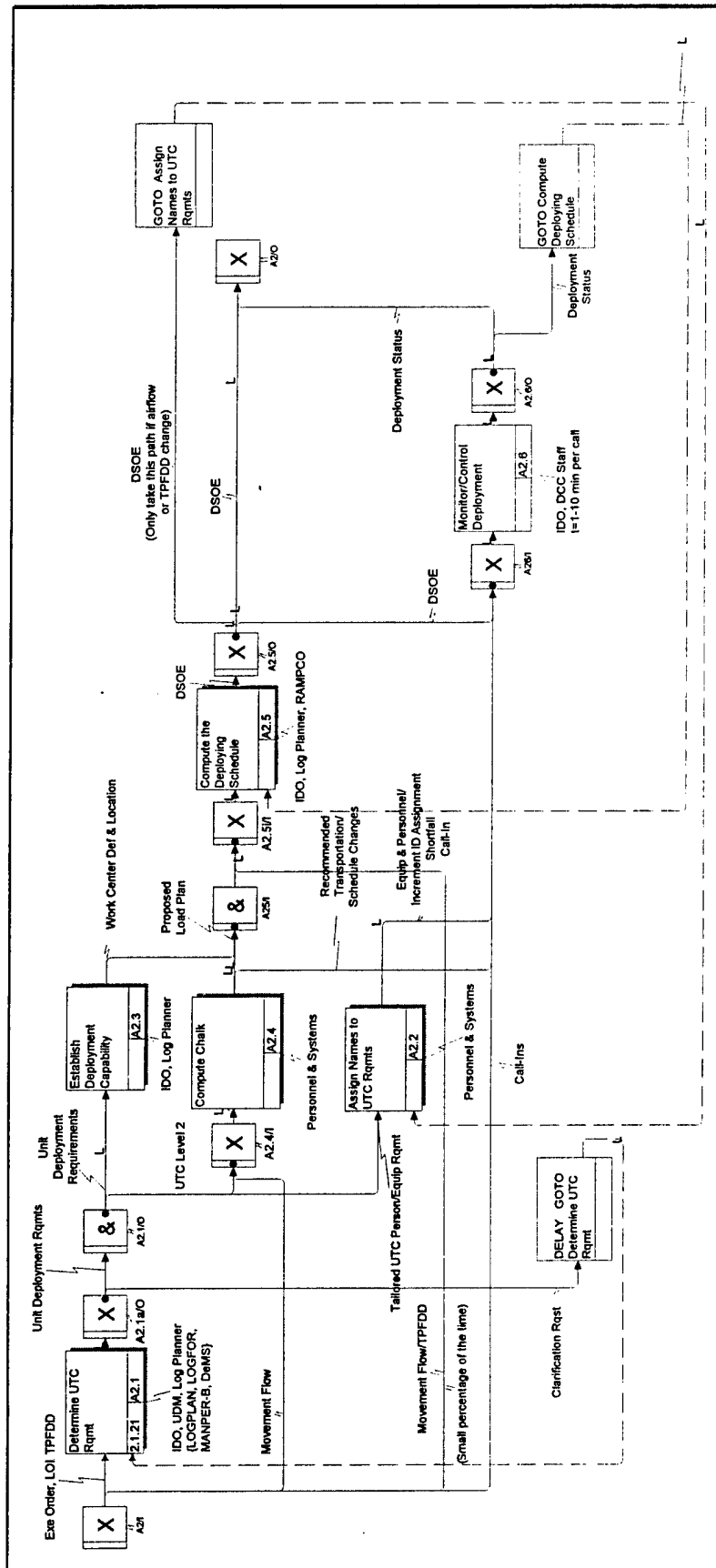


<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A1.1	Identify Battle Staff	Battle Staff Member Info	Once the first warning notification is received, a list of eligible base personnel to serve on the battle staff is identified.	min 5 mean 10 max 15			Command Post (Manned by a Wing Commander representative)
A1.2	Convene Battle Staff	Battle Staff	The battlestaff is notified and brought into the command post to oversee the deployment process and the base operations during the deployment.	Delay for Arrival min 20 mean 60 max 90			Wing Commander, IDO
A1.3	Analyze Task	Deployment Objectives	An evaluation of the base deployment requirements in conjunction with any political conditions produces a set of deployment objectives that must be met by the facilities used to perform the deployment.	min 60 mean 70 max 80-			IDO SORTS
		Tailored UTC and LIMFACS/Shortfalls	The battlestaff will send all the tailored deployment requirements and any limiting factors and shortfalls to the MAJCOM for approval or response.			1% LIMFACS/ Shortfalls 2% Need Approval for Tailoring	IDO SORTS
A1.4	Determine Base Allocation	COA	Based on the current site operations and the status of the predefined facilities, and especially on the deployment objectives, the information within the deployment plan is adjusted to define the actual allocation of site facilities to be used.	min 15 mean 20 max 30			SORTS READY CCS CAT
		Reports	Various reports of the base operations and deployment efforts must be sent to the higher-level authorities.				Battlestaff



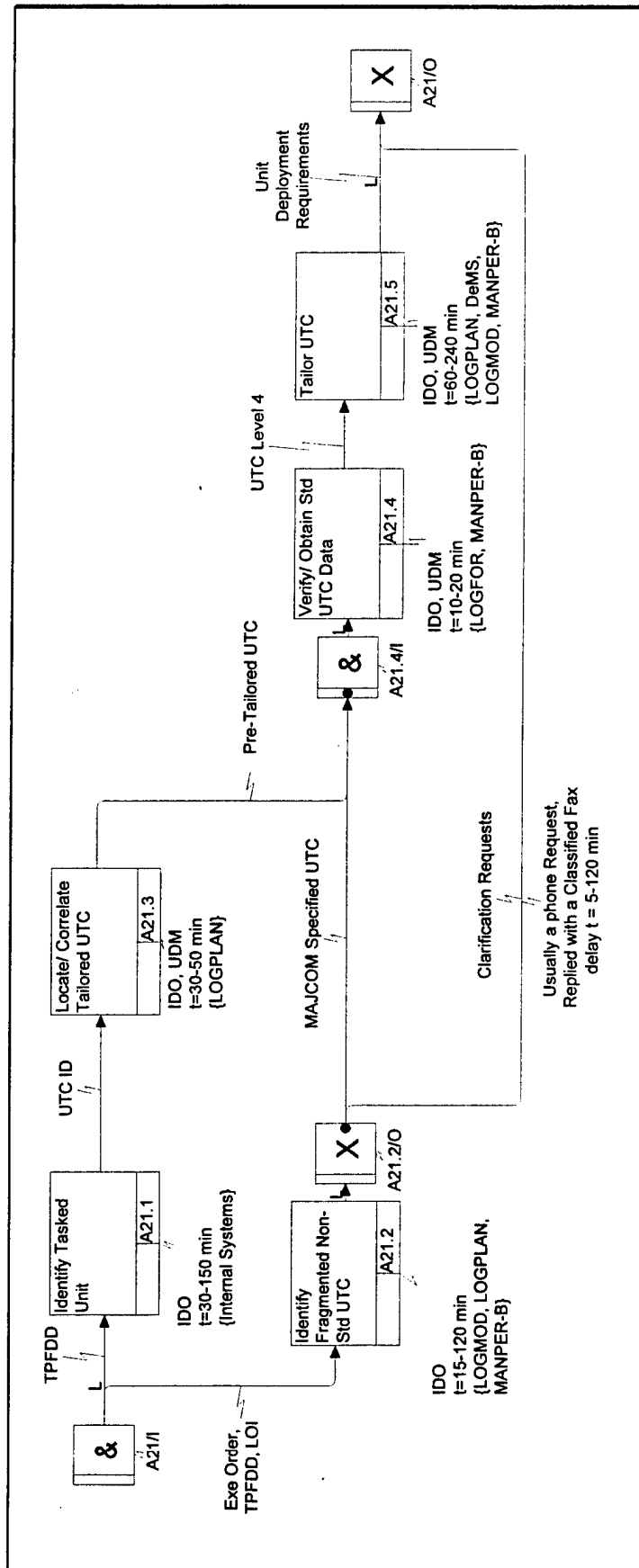
A1. Plan Site Adjustments

Node Number	Process Name	Output/Product	Description	Time to Complete (in minutes)	Frequency of Occurrence	Exceptions/ Rules Variation Factors	Resource
A2.1	Determine UTC Rqmt	Unit Deployment Rqmts	The specific requirements for the deployment must be established.	See Decomposition			IDO, UDM, Log Planner, LOGPLAN, LOGFOR, MANPER-B DeMS
		Clarification Request	Sometimes a request is sent to MAJCOM for more information regarding tasking requirements and UTCs.				IDO, UDM, Log Planner, LOGPLAN, LOGFOR, MANPER-B DeMS
A2.2	Assign Names to UTC Rqmts	Equip & Personnel/ Increment ID Assignment	Knowing the requirements of the UTC and the availability of the base resources, specific assignments of personnel and equipment resources are made to meet the tasking requirements of the UTC.	See Decomposition			Personnel & Systems
		Shortfall	If any equipment or personnel are not available for deployment, then a shortfall must be generated and sent to higher levels.				Personnel & Systems
		Call-in	As personnel and equipment are selected and assigned to be deployed, the DCC is notified of the status, whether completed or a problem, such as a LIMFAC or shortfall.				Personnel & Systems
A2.3	Establish the Deployment Capability	Work Center Definition & Location	Using the deploying requirements, the deployment work centers needed to satisfy all the requirements are identified along with the necessary flow through the work centers.	See Decomposition			IDO, Log Plans
A2.4	Compute Chalk	Proposed Load Plan	Each chalk must be defined with which increments and passengers will be included and how they will be loaded.	See Decomposition			Personnel & Systems
		Recommended Transportation/ Schedule Changes	A recommendation is made to change the type of conveyance required to move cargo and personnel that are to be deployed, and to refine the schedule based on the necessary conveyance.				Personnel & Systems
A2.5	Compute The Deploying Schedule	DSOE	The deploying schedule is established to perform the actual deployment.	See Decomposition			Personnel & Systems
A2.6	Monitor/ Control Deployment	Deployment Status	The IDO keeps the Battlestaff informed of the current state of the deployment effort, including any problems, shortfalls, or limiting factors.	min 1 mean 2 max 10			IDO, DCC Staff



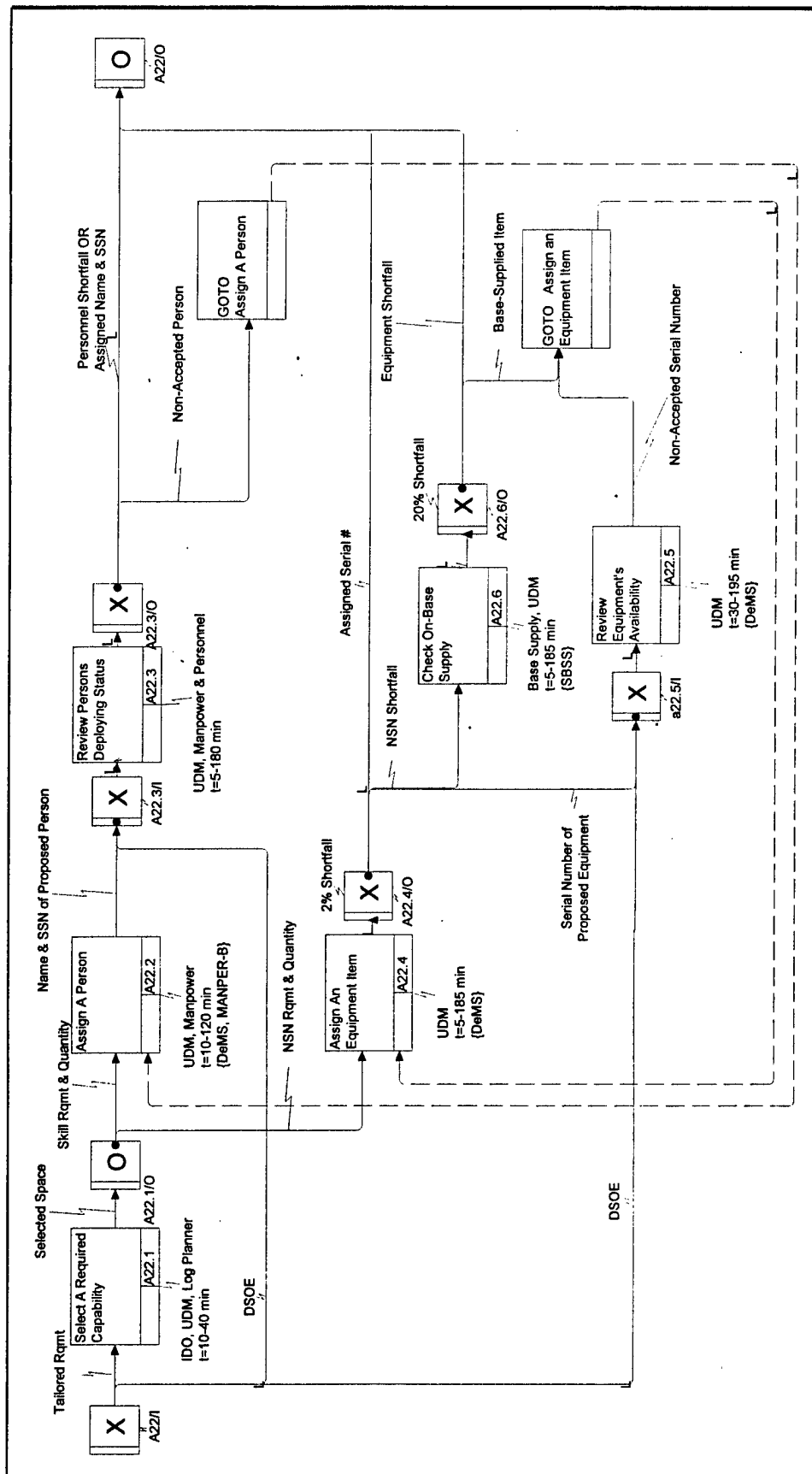
A2: Execute Activation Process

<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A21.1	Identify Tasked Unit	UTC/UIC	The Unit Identification Code uniquely identifies the unit tasked to provide the capabilities defined in the Unit Type Code.	min 30 mean 45 max 150			IDO
A21.2	Identify Fragmented Non-Std UTC	MAJCOM Specified UTC	The UTC is compared against the standard UTC to determine what MAJCOM tailored to account for needs at the receiving base that the standard UTC cannot meet, or capabilities at the receiving base that the UTC will not need to meet.	min 15 mean 50 max 120			IDO, LOGPLAN LOGMOD, MANPER, Internal Systems
		Clarification Request	A request is sent to MAJCOM for more details on the tasked fragmented UTC or specifics on what they tailored in or out of a UTC.			Usually phone request, then reply is Classified fax within 5-120 min	IDO, LOGPLAN LOGMOD, MANPER, Internal Systems
A21.3	Locate/Correlate Tailored UTC	Pre-Tailored UTC	The LOGPLAN system is searched to see if this UTC was previously tailored when an early warning was received for this tasking or if a recent deployment tailored it for similar mission requirements and location.	min 30 mean 40 max 50			IDO, UDM LOGPLAN
A21.4	Verify/Obtain Standard UTC Data	UTC Level 4	COMPES is accessed to obtain all the standard LOGDET of the equipment and material requirements, summarized transportation characteristics, and manpower detail by quantity, function, grade, and AFSC for the tasked UTC.	min 10 mean 15 max 20			IDO, UDM LOGFOR MANPER
A21.5	Tailor UTC	Unit Deployment Rqmts	The UTC is tailored based on specific instructions and requirements from orders and LOIs, climatic conditions, site survey information, and past experience.	min 60 mean 90 max 240			IDO, UDM, LOGPLAN, DeMS LOGMOD, MANPER



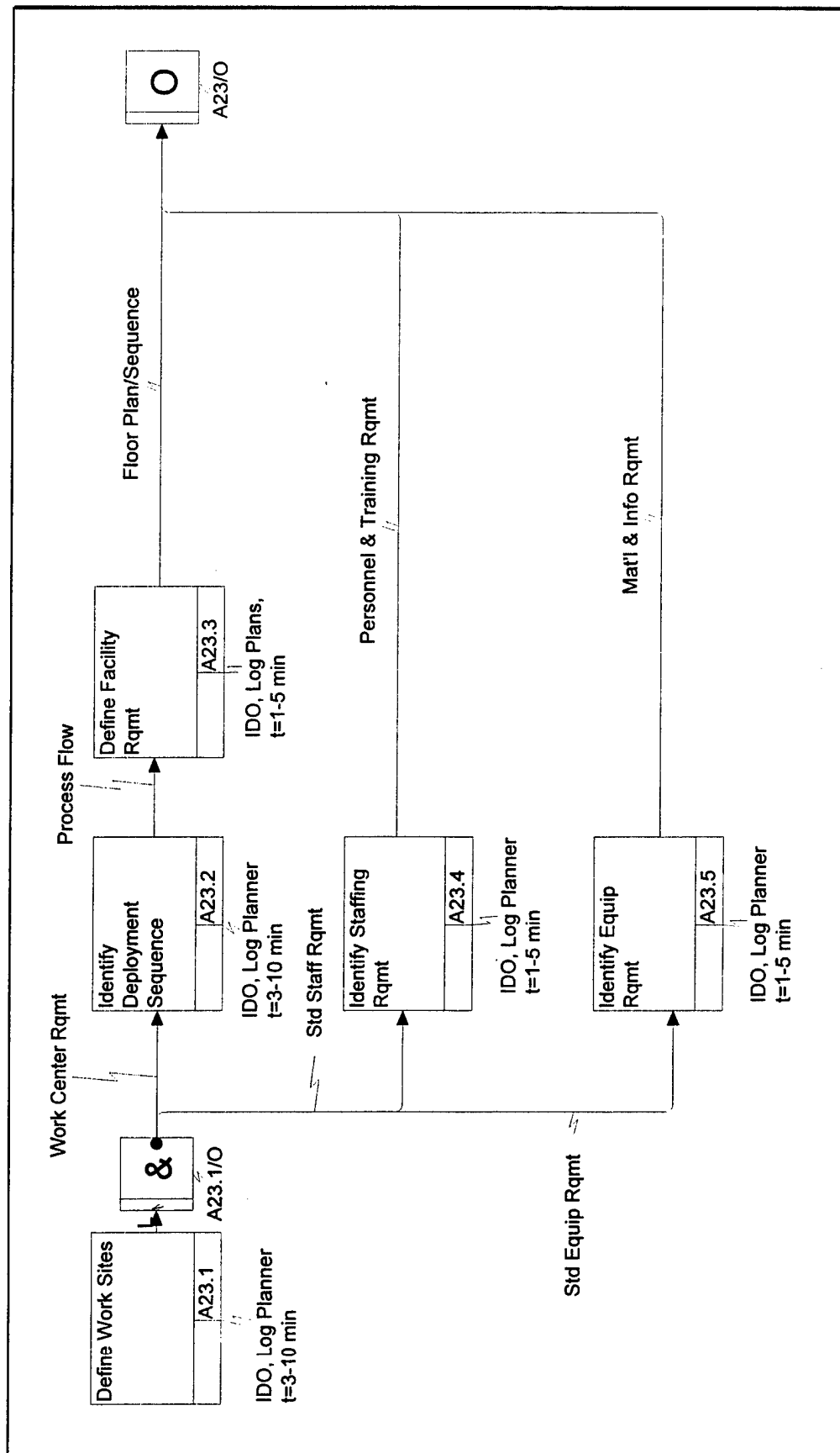
A21: Determine UTC Requirement

Node Number	Process Name	Output/Product	Description	Time to Complete (in minutes)	Frequency of Occurrence	Exceptions/ Rules Variation Factors	Resource
A22.1	Select A Required Capability	Selected Space	The personnel skills, in terms of numbers of each AFSC, needed to satisfy the UTC specified in the mission is determined, along with the equipment requirements, in terms of numbers of each NSN.	min 10 mean 20 max 40			IDO, UDM, Log Planner
A22.2	Assign A Person	Name & SSN of Proposed Person	The name and social security number of an eligible person is recommended to satisfy an AFSC position for the UTC. Their deployment and training history is included.	min 10 mean 60 max 120			UDM, Manpower, DeMS, MANPER-B
A22.3	Review Persons Deploying Status	Assigned Name & SSN	If the proposed person is eligible and qualified to satisfy the AFSC requirement, then they are assigned the deployment position.	min 5 mean 60 max 180	99% Assigned 30% Ineligible - (65% Waived) (35% Refilled)		UDM, Manpower & Personnel
		Non-Accepted Person	After a review of the person's eligibility, the proposed person is deemed non-acceptable for deployment.				UDM, Manpower & Personnel
		Personnel Shortfall	If none of the proposed individuals are eligible for deployment, then a shortfall is relayed to the IDO/DCC.		1% Shortfall		UDM, Manpower & Personnel
A22.4	Assign An Equipment Item	Assigned Serial #	The proposed equipment's operational status was acceptable so the equipment is assigned to be deployed to satisfy an NSN requirement of the UTC.	min 5 mean 25 max 185			UDM, DeMS
		NSN Shortfall	If the identified equipment cannot satisfy the requirement, no substitutions are available, and supply cannot satisfy the requirement, then an NSN shortfall is identified.		2% Shortfall		UDM, DeMS
		Serial Number of Proposed Equip	Based on the prioritized list in the deployment plan, the serial number of a piece of equipment is proposed to satisfy an equipment requirement of the UTC.				UDM, DeMS
		Call-In	As equipment is selected and assigned to satisfy each NSN requirement, the DCC is notified of its status.				UDM
A22.5	Review Equipment's Availability	Non-Accepted Serial Number	After a review of the operational status of the proposed equipment during the timeframe defined in the DSOE, the equipment was declared ineligible for deployment.	min 30 mean 50 max 195	5% Not Accepted		UDM
A22.6	Check On-Base Supply	Base Supplied Item	If base supply can satisfy an equipment shortfall identified by the unit, then they will provide the equipment to the unit.	min 5 mean 20 max 185			UDM, Base Supply, SBSS
		Equipment Shortfall	If base supply cannot satisfy an equipment shortfall identified by the unit, then a shortfall is relayed to the IDO/DCC.		20% Shortfall		UDM, Base Supply, SBSS



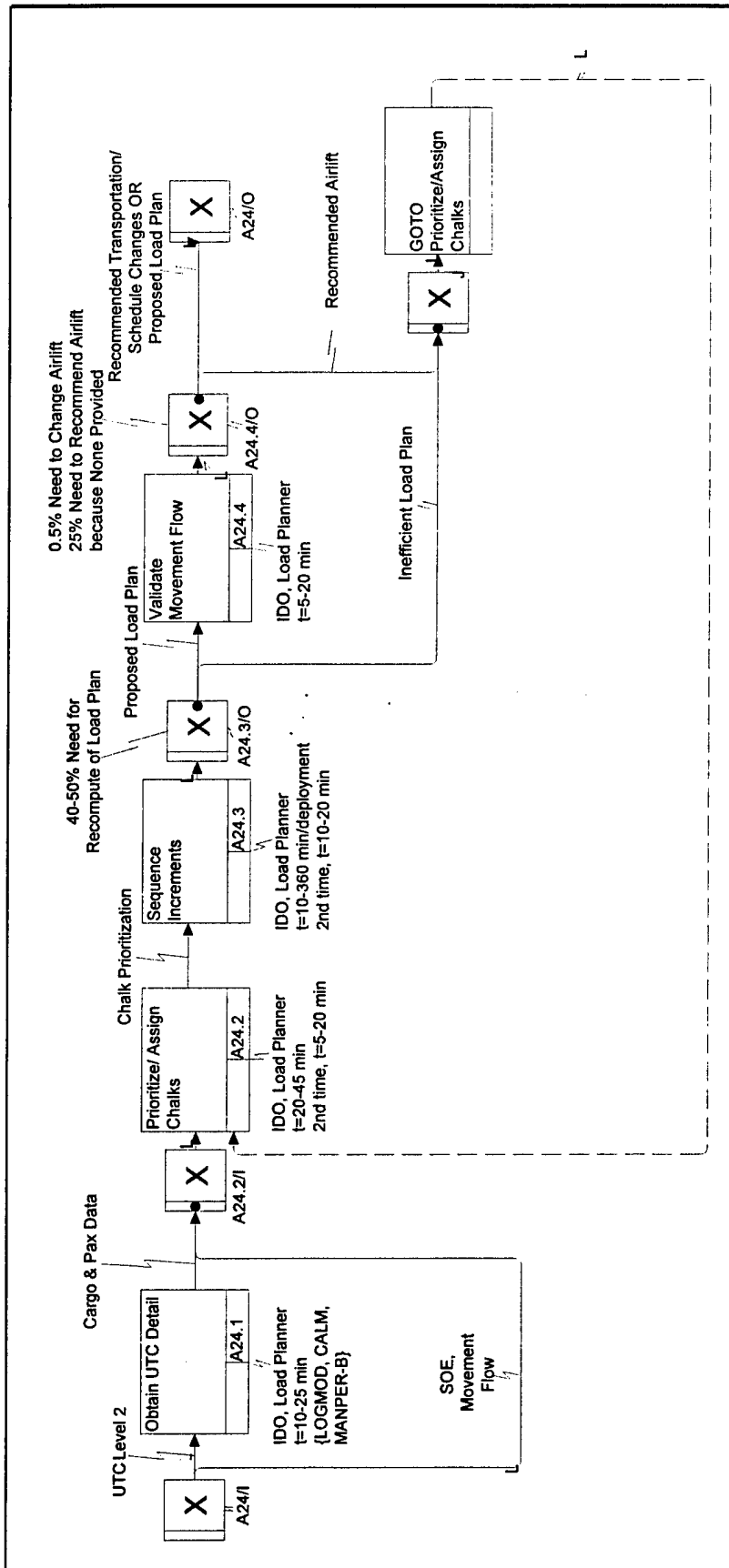
A22: Assign Names to UTC Requirements

<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A23.1	Define Work Sites	Work Center Rqmt	The work centers are defined based on the scope of the requirements in terms of the quantity of passengers and cargo and any special requirements.	min 3 mean 5 max 10			IDO, Log Planner
A23.2	Identify Deployment Sequence	Process Flow	With the functionality of each work center defined, a processing flow is established for the deployment process through the work centers, in accordance with those specified in the deployment plan.	min 3 mean 5 max 10			IDO, Log Planner
A23.3	Define Facility Rqmt	Floor Plan/ Sequence	Floor plans and layouts are designed for each work center in the allocated facility to accommodate the scope of the deployment requirements and the necessary flow.	min 1 mean 2 max 5			IDO, Log Planner
A23.4	Identify Staffing Rqmt	Personnel & Training Rqmt	Staffing and training requirements are established based on the type of work center, the scope and quantity of the requirements, and the available resources within the base.	min 1 mean 3 max 5			IDO, Log Planner
A23.5	Identify Equip Rqmt	Mat'l & Info Rqmt	Material and information requirements are defined and associated with each work center and based on the quantity of the deployment requirements.	min 1 mean 3 max 5			IDO, Log Planner



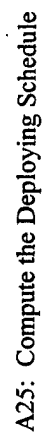
A23: Establish Deployment Capability

<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A24.1	Obtain UTC Detail	Cargo & Pax Data	Dimensional and specification information for each increment is obtained, such as length, width, height, center of balance, hazardous material info, and shipment priority, along with the number of passengers.	min 10 mean 15 max 25			IDO, Load Planner, LOGMOD, MANPER-B, CALM
A24.2	Prioritize/Assign Chalks	Chalk Prioritization	The chalks are prioritized to meet the current schedule and mission requirements.	min 20 mean 30 max 45		Second time, t=5-20 min	IDO, Load Planner
A24.3	Sequence Increments	Proposed Load Plan	A tentative load plan is developed that identifies all cargo and passengers on the chalk, where they are to be located on the chalk, and the order in which they should be loaded on the chalk.	min 10 mean 60 max 360		Second time, t=10-20 min	IDO, Load Planner
		Inefficient Load Plan	When sequencing the processing of standard UTCs it may be identified that it does not make full utilization of the available cabin load.		40%-50% Need Recomputed		IDO, Load Planner
A24.4	Validate Movement Flow	Recommended Airlift	If the schedule did not identify a specific airflow, then an airlift that would be suitable for deployment is identified.	min 5 mean 10 max 20			IDO, Load Planner
		Recommended Transportation/Schedule Changes	During the validation of the schedule and transportation requirements, changes may be identified to the preplanned manifests, cancellations, requests for additional transportation, and requests to change an aircraft configuration or schedule.		0.5% Need to change Airlift 25% Need to Recommend airlift because none provided		IDO, Load Planner

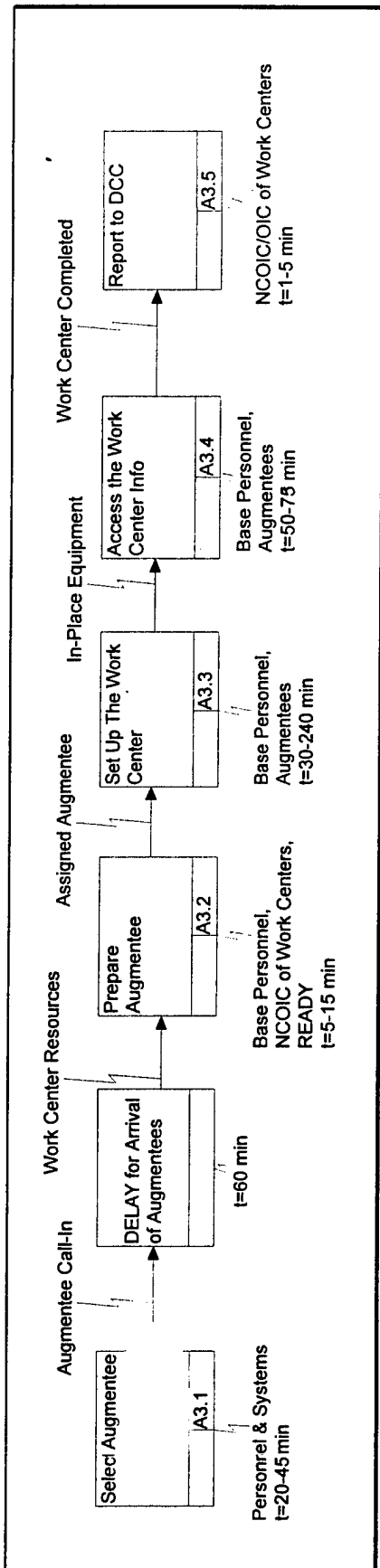


A24: Compute Chalk

<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A25.1	Schedule Deployment Site Set Up	Site Set-Up Time	The definition and location of the required work centers is reviewed and a time duration is established for each work center set-up.	min 5 mean 7 max 10			IDO, Log Planner, CDF, PDF
A25.2	Compute UTC Deployment Duration	Start & Completion Times	The TPFDD is referenced to identify the UTCs being deployed and their standard preparation times for the responsible unit are used to establish a start and stop time for each unit.	min 10 mean 20 max 30			IDO, Log Planner, UDM
A25.3	Identify Key Processing Events	Process Measurement Points	The proposed load plan is reviewed to identify the key deployment events to identify points to measure the progress and status of the deployment effort.	min 5 mean 10 max 20			IDO, Log Planner
A25.4	Compute Chalk Timelines	Chalk Schedules	Knowing the preparation time for each UTC, the UTC-to-chalk assignments, and the movement flow for each chalk, the schedules for each chalk are developed.	min 20 mean 30 max 40-			IDO, Log Planner

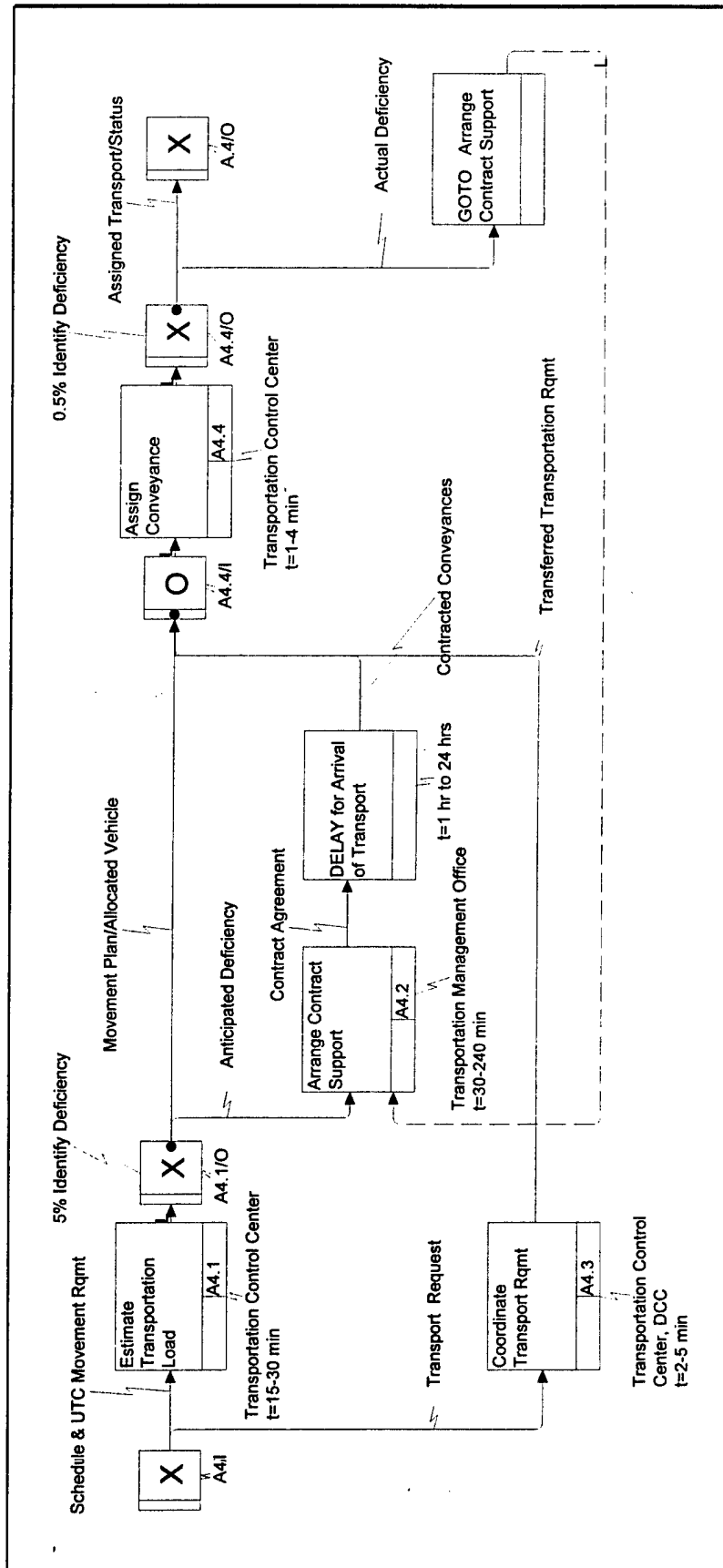


<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A25.5	Coordinate Chalks	DSOE	The preparation time for each chalk and work center is integrated into a complete schedule. This schedule may be modified as the deployment progresses.	min 20 mean 30 max 40			IDO, Log Planner, RAMPCO, Scheduling Systems
A3.1	Select Augmentee	Augmentee Call-In	Specific augmentees are selected based on their status, training requirements, and availability and are sent notices to report to specific locations on specific dates and times.	min 20 mean 30 max 45			Work Center Commanders, UDM
A3.2	Prepare Augmentee Status	Assigned Augmentee	The accepted augmentees are assigned their duties and their records are updated to reflect the training and experience gained during the deployment effort.	min 5 mean 10 max 15		Delay for Augmentee Arrival = 60 min	Base Personnel, Work Center NCOIC, READY
A3.3	Set Up The Work Center	In-Place Equip	The work center is physically set up and all the equipment is placed in the proper locations.	min 30 mean 90 max 240			Base Personnel, Augmentees
A3.4	Access The Work Center Info	Work Centers	The work centers are considered operational when they are completely staffed and all the required resources are readily available.	min 50 mean 60 max 75			Base Personnel, Augmentees
		Work Center Completed	A work center is considered completed when it is fully equipped, has the supporting supplies, and is ready to do its part of the deployment process.				Base Personnel, Augmentees
A3.5	Report To DCC	Work Center Status Call-In	The DCC is notified when the work center is operational.	min 1 mean 2 max 5			Work Center NCOIC/OIC

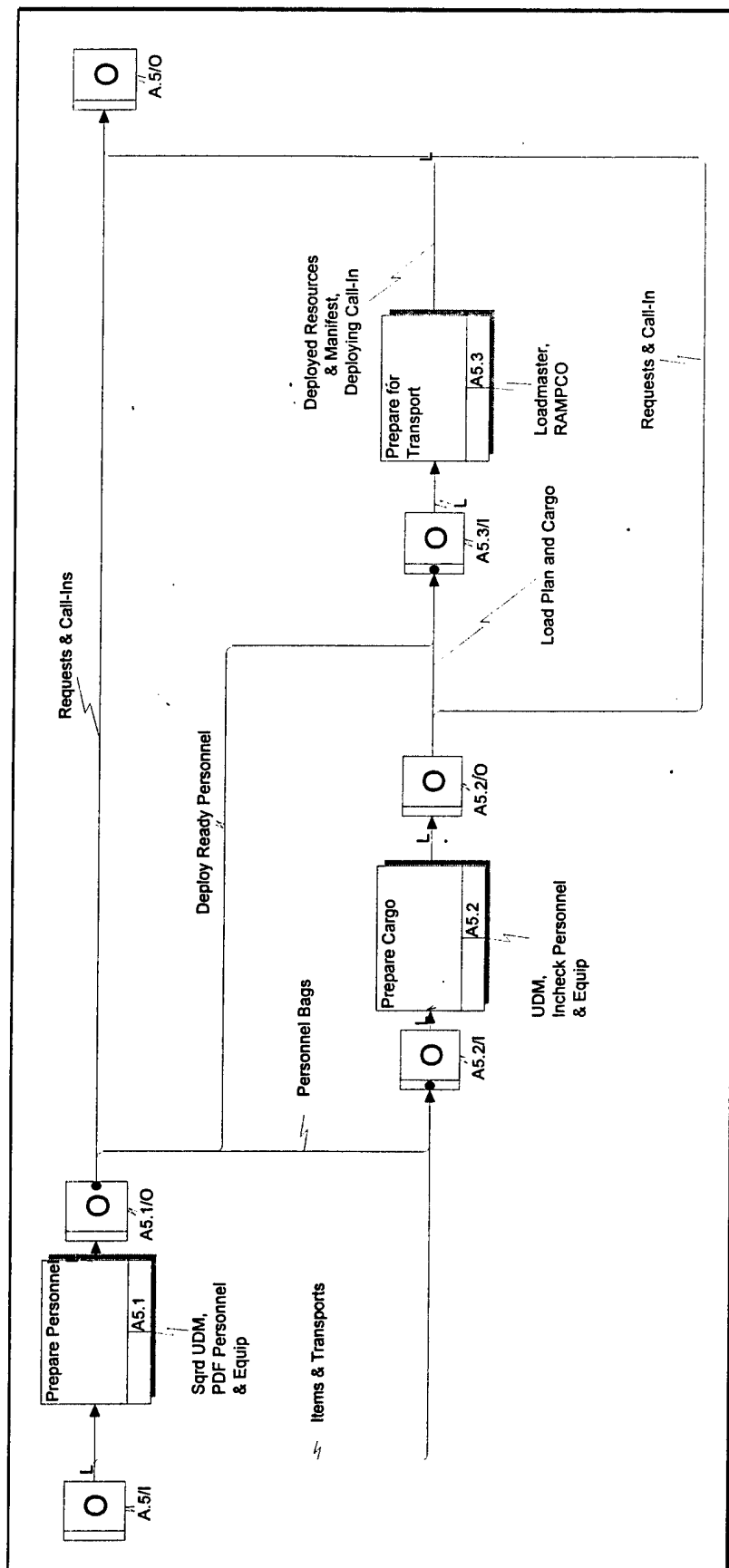


A3: Set Up Deployment Machine

Node Number	Process Name	Output/Product	Description	Time to Complete (in minutes)	Frequency of Occurrence	Exceptions/ Rules Variation Factors	Resource
A4.1	Estimate Transportation Load	Initial Movement Plan	A plan is developed which estimates the type of conveyances and drivers that will be needed during the deployment time frame.	min 15 mean 20 max 30			Transportation TCC
		Anticipated Deficiency	The anticipated movement requirements are compared with the conveyances available on base and any inability to move cargo and personnel during the deployment is identified.		5% Identify Deficiency		Transportation TCC
		Allocated On-Base Vehicles/Drivers	Conveyances and drivers are assigned the responsibility to move cargo and personnel within the base as part of the deployment effort.				Transportation TCC
A4.2	Arrange Contract Support	Contracted Conveyances	Conveyances are brought onto the deploying base to support the deployment operations.	min 30 mean 60 max 240		Delay for arrival of transports = 1-24 hours	TMO
		Contracting Agreement	An official arrangement is established between the deploying base and external conveyance capabilities to support the deployment operations.				TMO
A4.3	Coordinate Transport Rqmt	Status Update	The DCC is notified when transportation has been initiated based on a request from a unit.	min 2 mean 3 max 5			Transportation
		Transferred Transportation Rqmt	The DCC transportation focal point notifies the vehicle controller regarding a movement request.				Transportation, DCC Focal Point
A4.4	Assign Conveyance	Assigned On-Base Transportation	The transportation within the base is assigned to the selected driver in terms of what is to be transported, the source and destination of the move, and the designated start and completion times for the transport.	min 1 mean 2 max 4	95% vehicles dispatched according to schedule 5% of call-ins generate reassignments		TCC, Transportation
		Actual Deficiency	A requirement for on-base transportation cannot be satisfied.		0.5% Deficiency		TCC, Transportation
		Assigned Commercial Transport	The transportation is contracted to ensure the necessary transportation is available when needed to support the deployment process.				TCC, Transportation

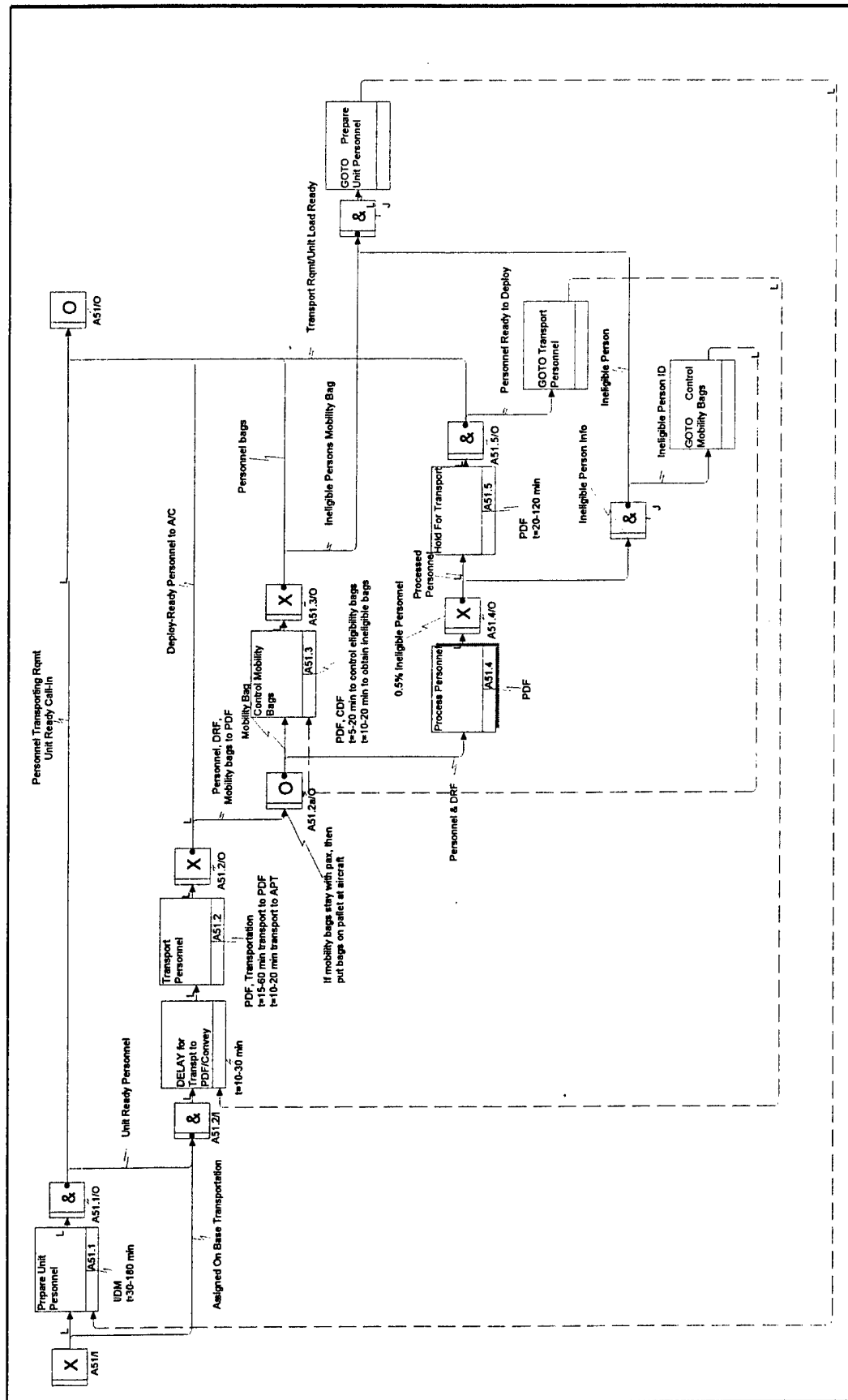


Node Number	Process Name	Output/Product	Description	Time to Complete (in minutes)	Frequency of Occurrence	Exceptions/ Rules Variation Factors	Resource
A5.1	Prepare Personnel	Deploy-Ready Personnel	Personnel are considered ready for deployment when they have completed all personnel processing and are waiting to board the conveyance to leave the base. The DCC is notified when the personnel processing have completed specific milestones established in the DSOE. A request is sent to transportation to move personnel from one location to another.	See Decomposition			UDM, PDF, Trans
		Personnel Status Call-in					UDM, PDF, Trans
		Personnel Transporting Rqmt					UDM, PDF, Trans
		Personnel Bags	Bags that contain items of organizational clothing and equipment that are not necessary for daily duties and permanent issue is not warranted are separated from the passengers at the PDF. A cargo increment is placed appropriately in the chalk and all necessary information must be attached to the increment.				UDM, PDF, Trans
A5.2	Prepare Cargo	Transport Ready Cargo & Info	A cargo increment is placed appropriately in the chalk and all necessary information must be attached to the increment.	See Decomposition			UDM, CDF, Trans
		Cargo Transporting Rqmt	A request is sent to transportation to move the cargo from the unit to the CDF.				UDM, CDF, Trans
		Cargo Ready Status Call-In	The DCC is notified that the cargo is ready to be transported.				UDM, CDF, Trans
		Final Load Plan	The proposed load plan is adjusted to produce the final load plan, which also depicts the cargo that is already on the conveyance upon arrival at the deploying site.				UDM, CDF, Trans
A5.3	Prepare for Transport	Deployed Resources & Manifest (Personnel & Cargo)	All deploying personnel and cargo are aboard the conveyance and ready to leave the deploying site.	See Decomposition			RAMPKO, Load Master
		Deploying Call-In	The DCC is notified when all cargo and passengers are aboard the conveyance.				RAMPKO, Load Master



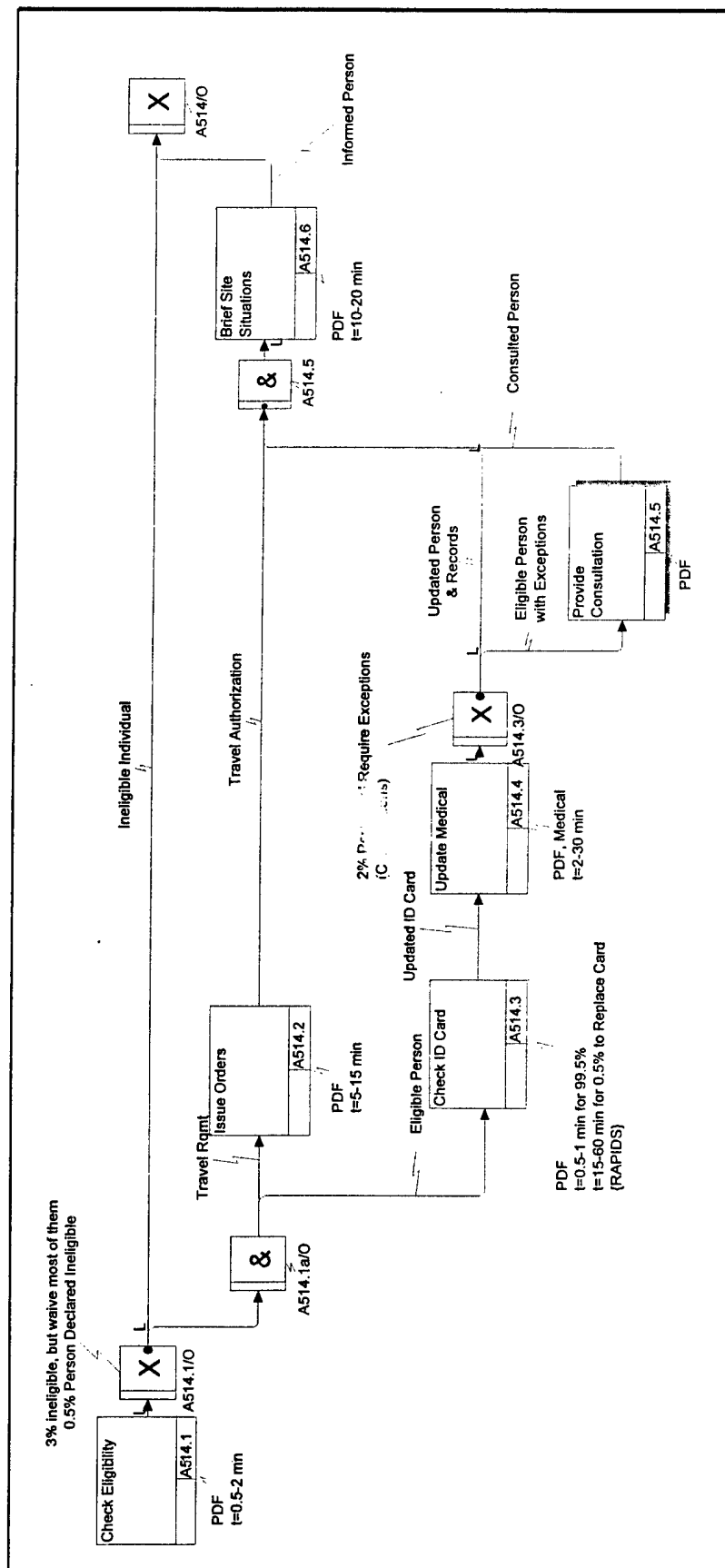
A5: Deploy Resources

Node Number	Process Name	Output/ Product	Description	Time to Complete (in minutes)	Frequency of Occurrence	Exceptions/ Rules Variation Factors	Resource
A51.1	Prepare Unit Personnel	Unit Ready Personnel	The personnel are all assembled at the unit, accounted for, and are ready to be transported to the PDF.	min 30 mean 60 max 180			UDM
		Personnel Transporting Rqmt	A request is sent to transportation to move the passengers from the unit to the PDF.			Delay for transport arrival = 10-30 min	UDM
A51.2	Transport Personnel	Unit Ready Call-In Deploy-Ready Personnel	The DCC is notified when the unit is ready to be transported to the PDF. Personnel are considered ready for deployment when they have completed all personnel processing and are waiting to board the conveyance to leave the base.	To PDF APT min 15 10 mean 10 15 max 60 20			UDM Trans
		Mobility Bag	Upon arrival at the PDF, the mobility bags are separated from the passengers and considered cargo for deployment.				Trans
		Personnel & DRF	The passenger along with their deployment readiness folder, containing all the necessary medical and personal information, is transported to the PDF.				Trans
A51.3	Control Mobility Bags	Personnel Bags	Within the PDF, each person releases the mobility bags and then begins the personnel processing effort.	Control Obtain min 5 10 mean 15 15 max 20 20			PDF
		Ineligible Person's Mobility Bags	If during the processing effort a person is released from the deployment, the identification of that person is used by mobility bag control to retract that person's mobility bag from the cargo being prepared.				PDF
A51.4	Process Personnel	Processed Personnel	Personnel who have completed PDF processing and are ready to wait in the holding area.	See Decomposition			PDF
		Ineligible Person ID	If during the processing effort a person is released from the deployment, the identification of that person is sent to mobility bag control to retract that person's mobility bag.				PDF
		Ineligible Person	During the processing effort a person may be identified for some reason as one who cannot be deployed to the reception site.		0.5% Ineligible		PDF
A51.5	Hold For Transport	Deploy Ready Personnel	The personnel are ready for deployment and are ready to be transported to the chalk loading area.	min 20 mean 45 max 120			PDF
		Personnel Transporting Rqmt	A request is sent to transportation to move the passengers from the PDF holding area to the chalk.				PDF
		Unit Load Ready Call-In	The DCC is notified that deploying personnel are ready to be transported to the chalk loading area.				PDF



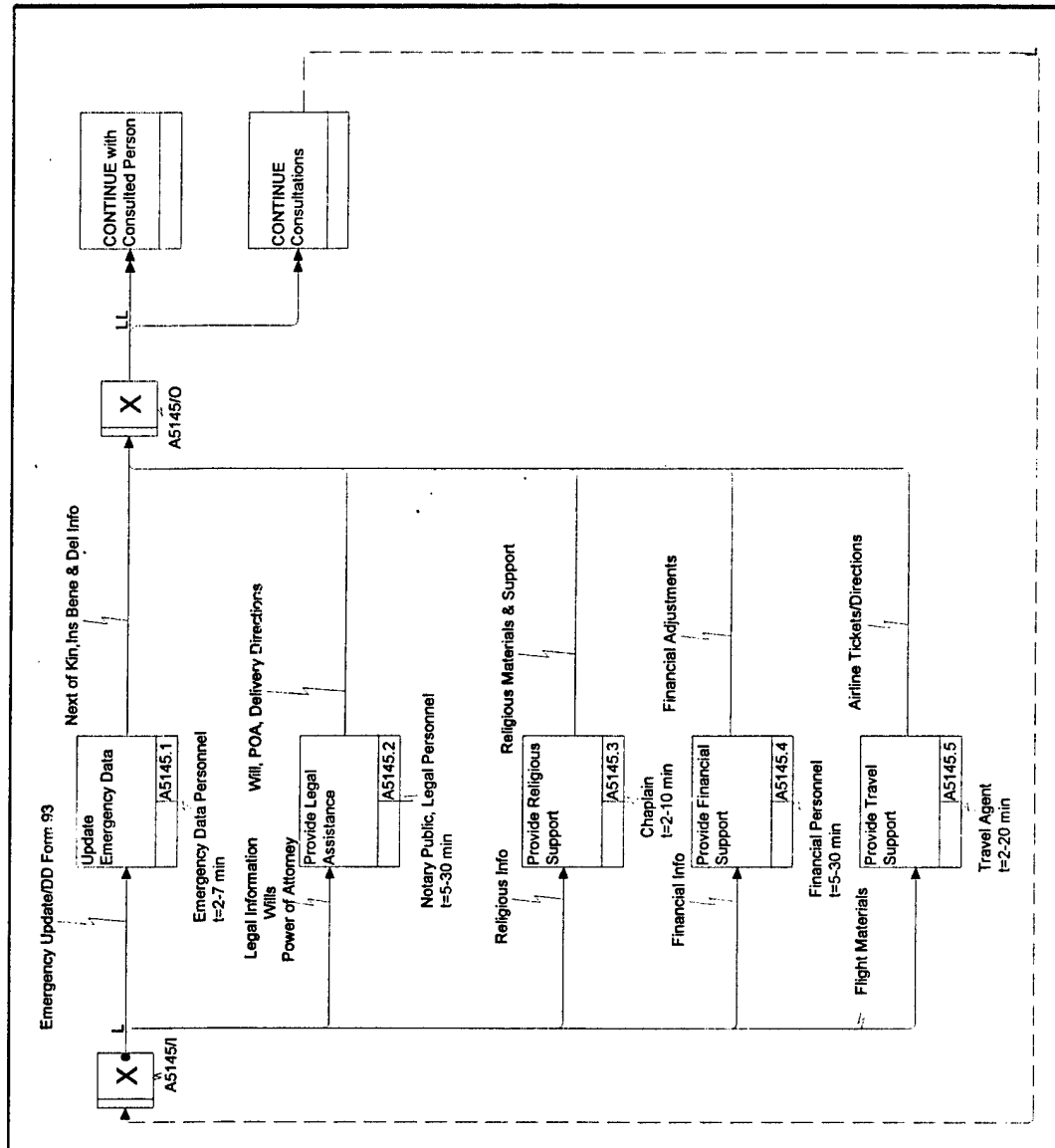
AS1: Prepare Personnel

Node Number	Process Name	Output/Product	Description	Time to Complete (in minutes)	Frequency of Occurrence	Exceptions/ Rules Variation Factors	Resource
A514.1	Check Eligibility	Eligible Person	A person is declared eligible for deployment if their personnel readiness information, readiness folder deployment information, and any additional information they provide matches the deployment eligibility criteria from the base deployment plan. If the individual does not meet the eligibility deployment criteria, then the person is returned to the UDM who must find a replacement to satisfy the shortfall.	min 0.5 mean 1 max 2			PDF
		Ineligible Person			3% Ineligible, but most waived 0.5% people declared ineligible		PDF
		Travel Rqmt	A review of the transportation requirements and travel requirements in the LOI may result in a need for the individual to travel commercial conveyances.				PDF
		Eligible Person With Exceptions	When a person is declared eligible they may have a need for consultation or to update information for emergencies, legal, religious, financial, or travel.				PDF
A514.2	Issue Orders	Travel Authorization	The travel orders are generated based on any special travel requirements of the individual and those specific for the deployment.	min 5 mean 10 max 15			PDF
A514.3	Check ID Card	Updated ID Card	During the check of the ID card for accuracy and condition it may be updated or a new card may be issued.	Check Replace min 0.5 15 mean 0.75 30 max 1 60			PDF RAPIDS
A514.4	Update Medical	Updated Person & Records	The deployed individual may receive shots or medication required because of the reception site, by direction of an LOI, or because they are due, and their medical records are updated to depict an accurate representation of their medical status. The individual may require processing through a number of optional work centers, based on exceptions.	min 2 mean 10 max 30		15-20 min wait after shot	PDF, Medical
A514.5	Provide Consultation	Consulted Person		See Decomposition	2% Require Exceptions (70% 1 exception) (20% 2 exceptions) (4% 3 exceptions) (3% 4 exceptions) (3% 5 exceptions)		PDF, Consulting Personnel
A514.6	Brief Site Situations	Informed Person	All deployed personnel who have all personal matters in order are briefed from a standard briefing for the reception site including any special conditions that may be included in the LOI.	min 10 mean 15 max 20			PDF



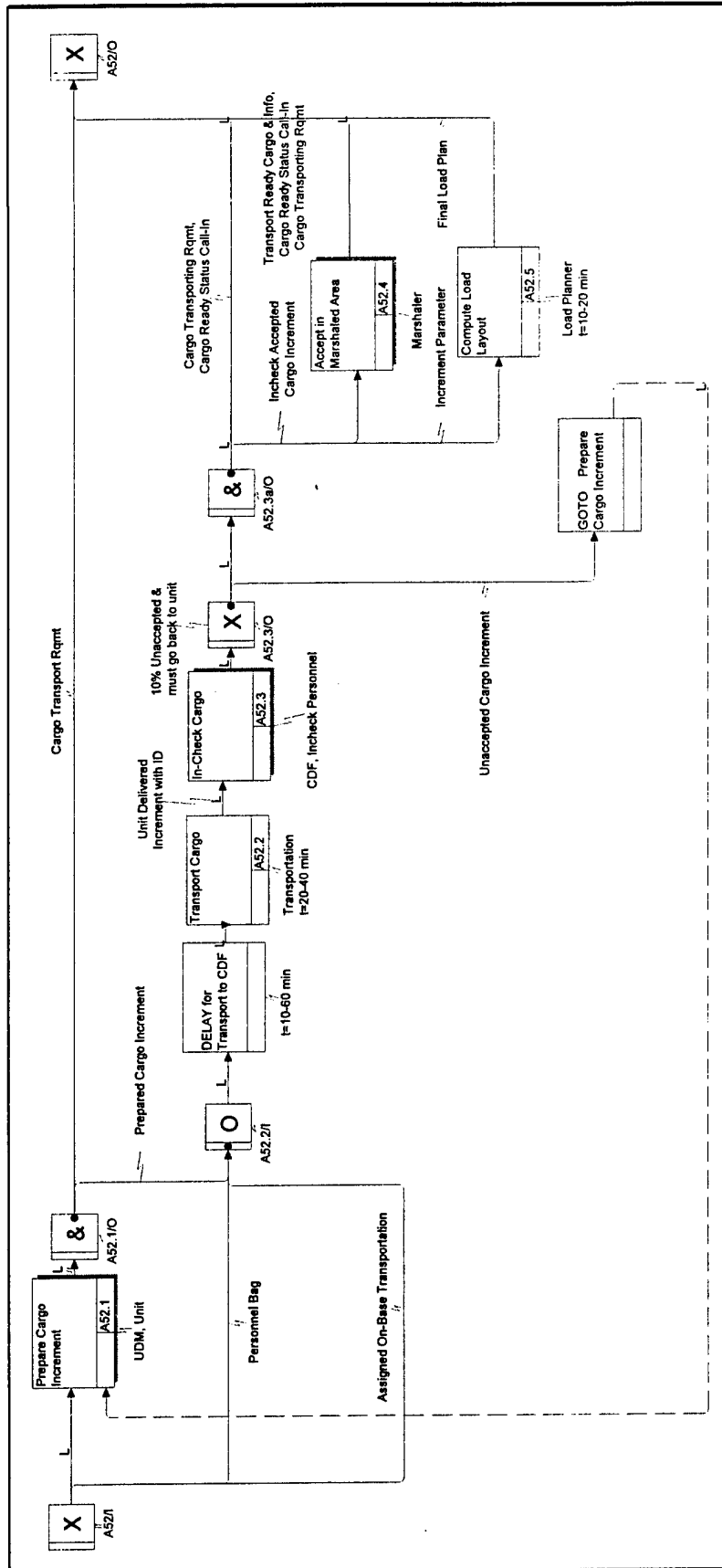
A514: Process Personnel

<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A5145.1	Update Emergency Data	Next of Kin & Insurance Beneficiary Info and Delivery Info	The emergency data work center is responsible for ensuring that each deploying individual has documented the net of kin and the insurance beneficiary as desired on the DD Form 93.	min 2 mean 5 max 7			PDF, Emergency Data Personnel
A5145.2	Provide Legal Assistance	Will, Power of Attorney, & Delivery Directions	The legal work center provides the opportunity for each deploying individual to complete a will and power of attorney along with instructions for where those documents are to be maintained.	min 5 mean 10 max 30			Notary Public, Legal Personnel
A5145.3	Provide Religious Support	Religious Materials & Support	Each individual consults the chaplain to build upon their religious beliefs and discuss the situation they are facing, receive support materials, and gain specific information related to religious and social customs of the reception site.	min 2 mean 5 max 10			Chaplain
A5145.4	Provide Financial Support	Financial Adjustments	The financial work center provides the opportunity for the deploying individual to establish or make adjustments to the person's financial set up and to receive any prepayments required for deployment.	min 5 mean 10 max 30			PDF, Financial Personnel
A5145.5	Provide Travel Support	Airline Tickets/ Directions	The necessary orders and travel documents are provided to either the individual or the person assigned as the troop commander.	min 2 mean 5 max 20			PDF, Travel Agent



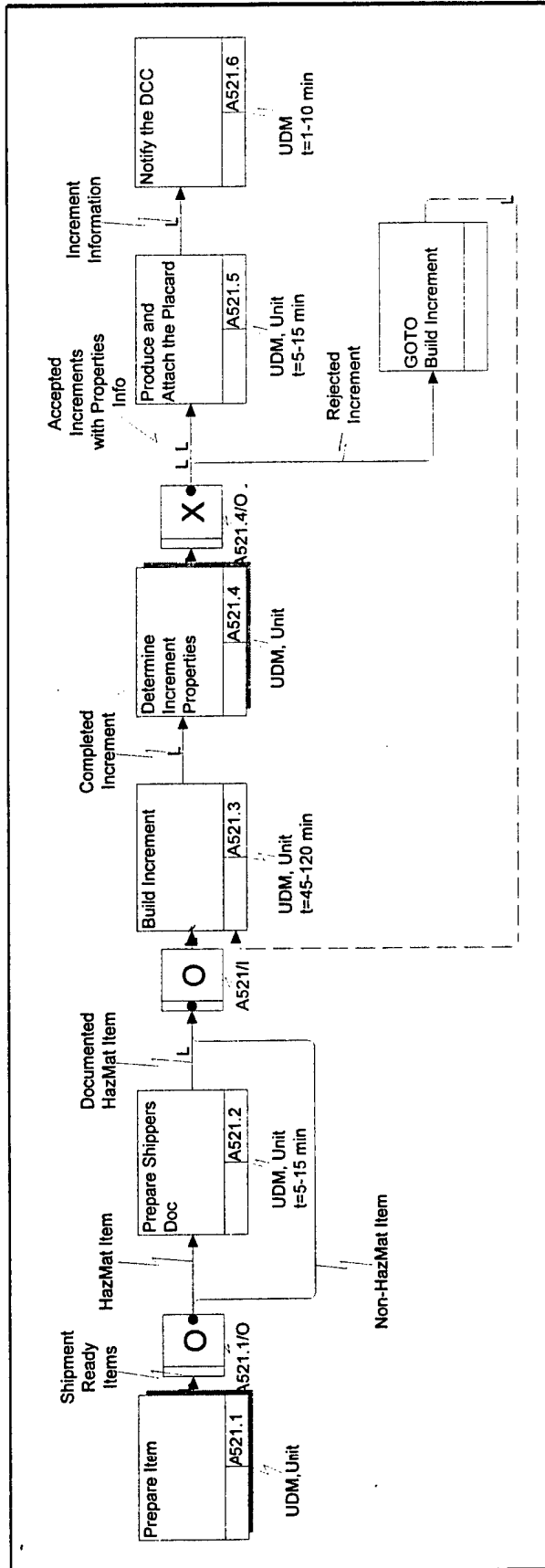
A5144: Provide Consultation

Node Number	Process Name	Output/Product	Description	Time to Complete (in minutes)	Frequency of Occurrence	Exceptions/ Rules & Variation Factors	Resource
A52.1	Prepare Cargo Increment	Prepared Cargo Increment	The unit prepares the cargo, builds the increment, and attaches a tag containing the increment number, contents, weight, measurement dimensions, center of balance, and hazardous/sensitive material information. The DCC is notified by the unit that the cargo is properly built, secured and documented and ready to be transported to the CDF.	See Decomposition			Unit, UDM
A52.2	Transport Cargo	Cargo Transporting Rqmt	Based on the schedule and chalk assignment in the DSOE, a cargo increment is delivered to the in-check area.	min 20 mean 30 max 40		Wait 10-60 min for transport	UDM
A52.3	In-Check Cargo	Unit Delivered Increment With ID	When the cargo has passed all inspections or fuel levels, no fluid leaks, proper increment building, and proper hazardous/sensitive material markings it is ready to be loaded onto the assigned conveyance. The DCC is notified when all the increments for a chalk have been received.	See Decomposition			Transportation
		In-Check Accepted Cargo Increment	Once the cargo has completed all inspections, transportation is notified to come and move the cargo.				CDF, Incheck Personnel
		Cargo Ready Status Call-In	When a cargo increment does not pass all the inspections, it is deemed unsafe to be loaded on the conveyance.				CDF, Incheck Personnel
		Cargo Transporting Rqmt					CDF, Incheck Personnel
		Unaccepted Cargo Increment			10% Unaccepted & must go back to unit		CDF, Incheck Personnel
A52.4	Accept Into Marshaled Area	Transport Ready Cargo & Info	All cargo has passed all inspections, is assembled in the marshaling area and is ready to be loaded on the assigned conveyance.	See Decomposition			Marshaler
		Cargo Ready Status Call-in	The DCC is notified that the cargo is assembled in the marshaling yard and is ready to be loaded on the assigned conveyance.				Marshaler
		Cargo Transporting Rqmt	A request is sent to RAMPCO to move the cargo from the marshaling yard to the assigned conveyance.				Marshaler
A52.5	Compute Load Layout	Final Load Plan	The proposed load plan is adjusted to produce the final load plan, which also includes the cargo that is already on the conveyance upon arrival at the deploying site.	min 10 mean 15 max 20		25-33% of conveyances have unexpected cargo	Load Planner



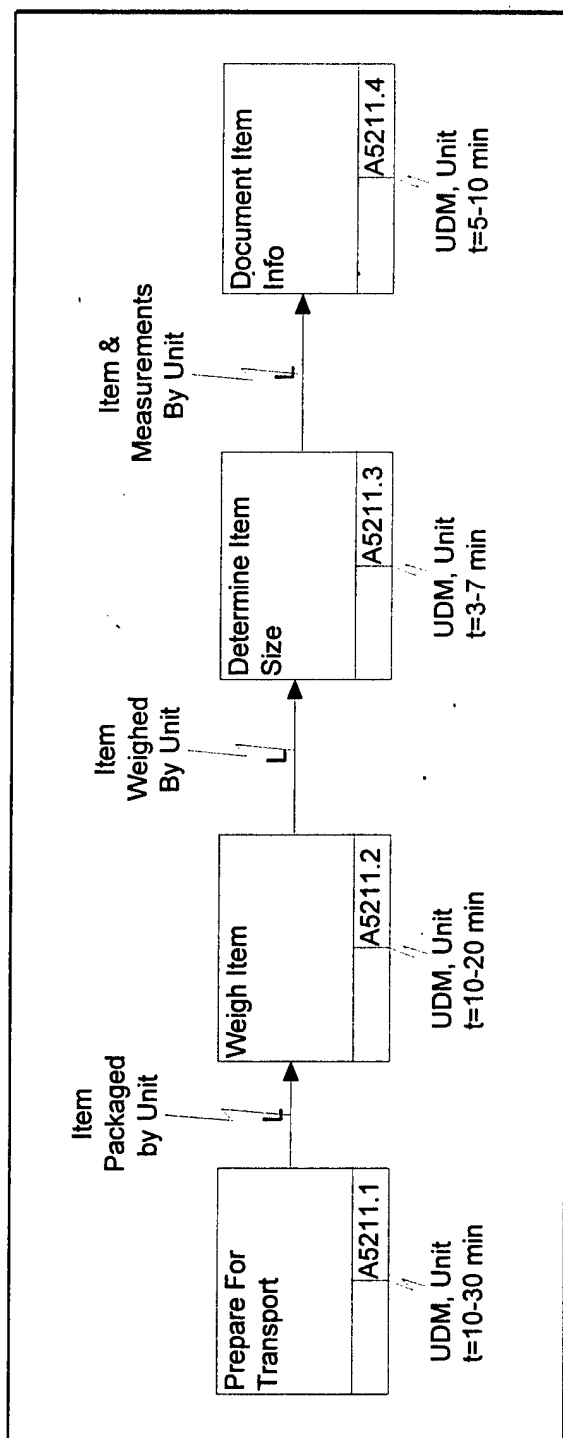
A52: Prepare Cargo

<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A521.1	Prepare Item	HazMat Item	Hazardous material is properly prepared and packaged according to the preparation checklist, and may even be weighed and measured.	See Decomposition			UDM, Unit
		Non-HazMat Item	Non-sensitive material is properly prepared and packaged according to the preparation checklist, and may even be weighed and measured.				UDM, Unit
A521.2	Prepare Shippers Doc	Documented HazMat Item	The shipper's declaration is properly completed and attached to the hazardous material item.	min 5 mean 10 max 15			UDM, Unit
A521.3	Build Increment	Completed Increment	The transport ready items are grouped and formed to the specified increment in accordance with restrictions for the transporting conveyance.	min 45 mean 90 max 120			UDM, Unit
A521.4	Determine Increment Properties	Accepted Increments with Properties Info	The increment characteristics (weight, measurements, and center of balance) are obtained and are within the transportation restrictions.	See Decomposition			UDM, Unit
		Rejected Increment	When the increment properties do not fit within the transportation requirements, the increment must be repacked.				UDM, Unit
A521.5	Produce and Attach the Placard	Prepared Cargo Increment	When the increment properties are within the acceptable limits, the placard is attached to the increment.	min 5 mean 10 max 15			UDM, Unit
		Increment Info	The increment properties, such as size, weight, and center of balance, are put on the placard.				UDM, Unit
A521.6	Notify the DCC	Cargo Transporting Rqmt	The DCC is notified the increment is properly packaged and is ready to be transported from the unit to the in-check.	min 1 mean 2 max 10			UDM, Unit



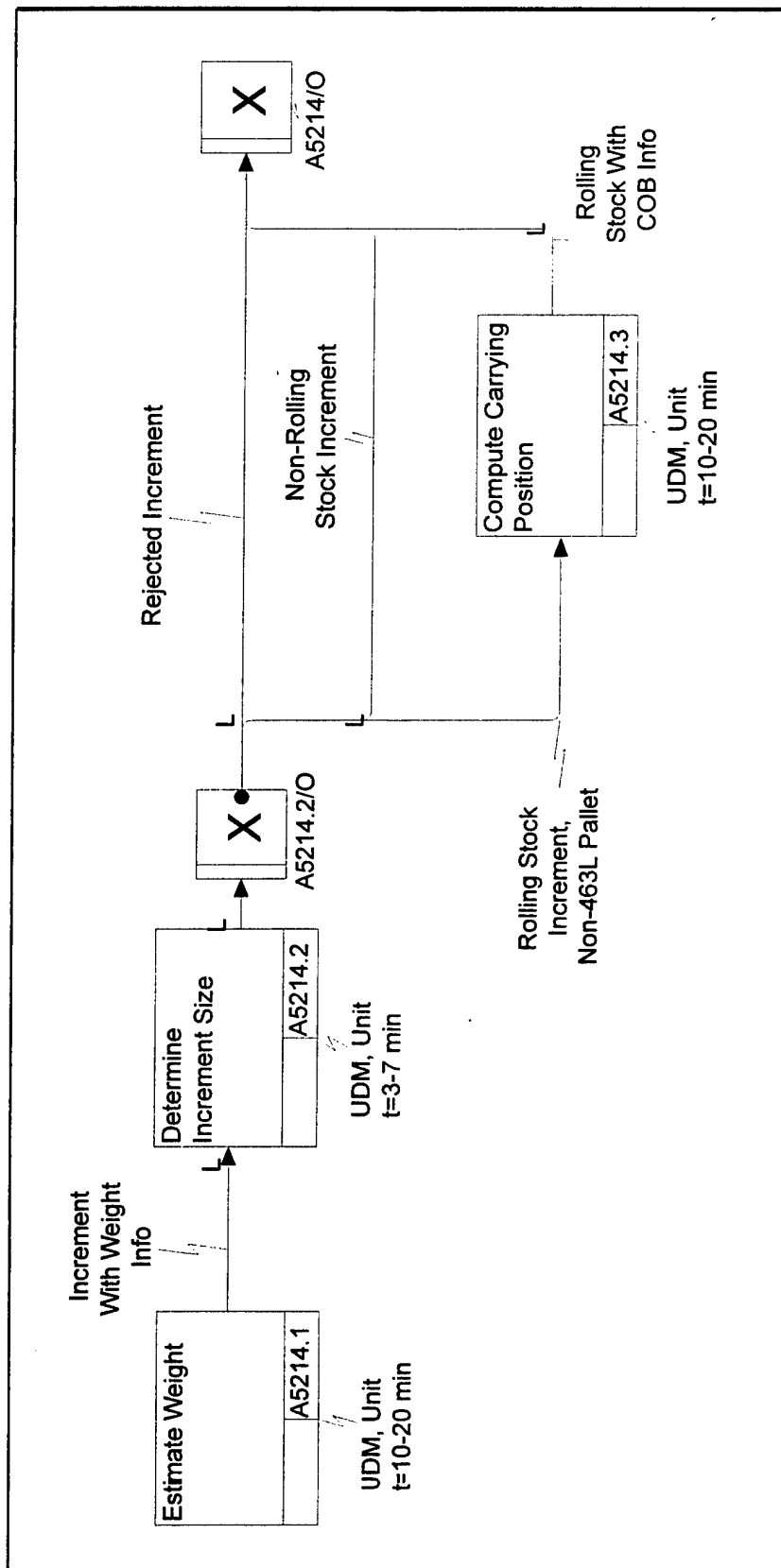
A521: Prepare Cargo Increment

<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A5211.1	Prepare for Transport	Item Packaged By Unit	The item is properly packaged according to established guidelines for issues such as placement within containers, proper fluid levels, correct markings, etc.	min 10 mean 15 max 30			UDM, Unit
A5211.2	Weigh Item	Item Weighed by Unit	The item has been properly prepared and weighed by the unit.	min 10 mean 15 max 20			UDM, Unit
A5211.3	Determine Item Size	Item Weight From Unit Item Measured by Unit	The packaged item is placed on a scale to document its weight. The item has been properly prepared, weighed, and measured by the unit.	min 3 mean 5 max 7			UDM, Unit UDM, Unit
		Item Measurement From Unit	Once the item is weighed it is measured, which is documented.				UDM, Unit
A5211.4	Document Increment Info	Shipment Ready Items	The item has been packaged and weighed and measured and all the documentation is updated.	min 5 mean 7 max 10			UDM, Unit



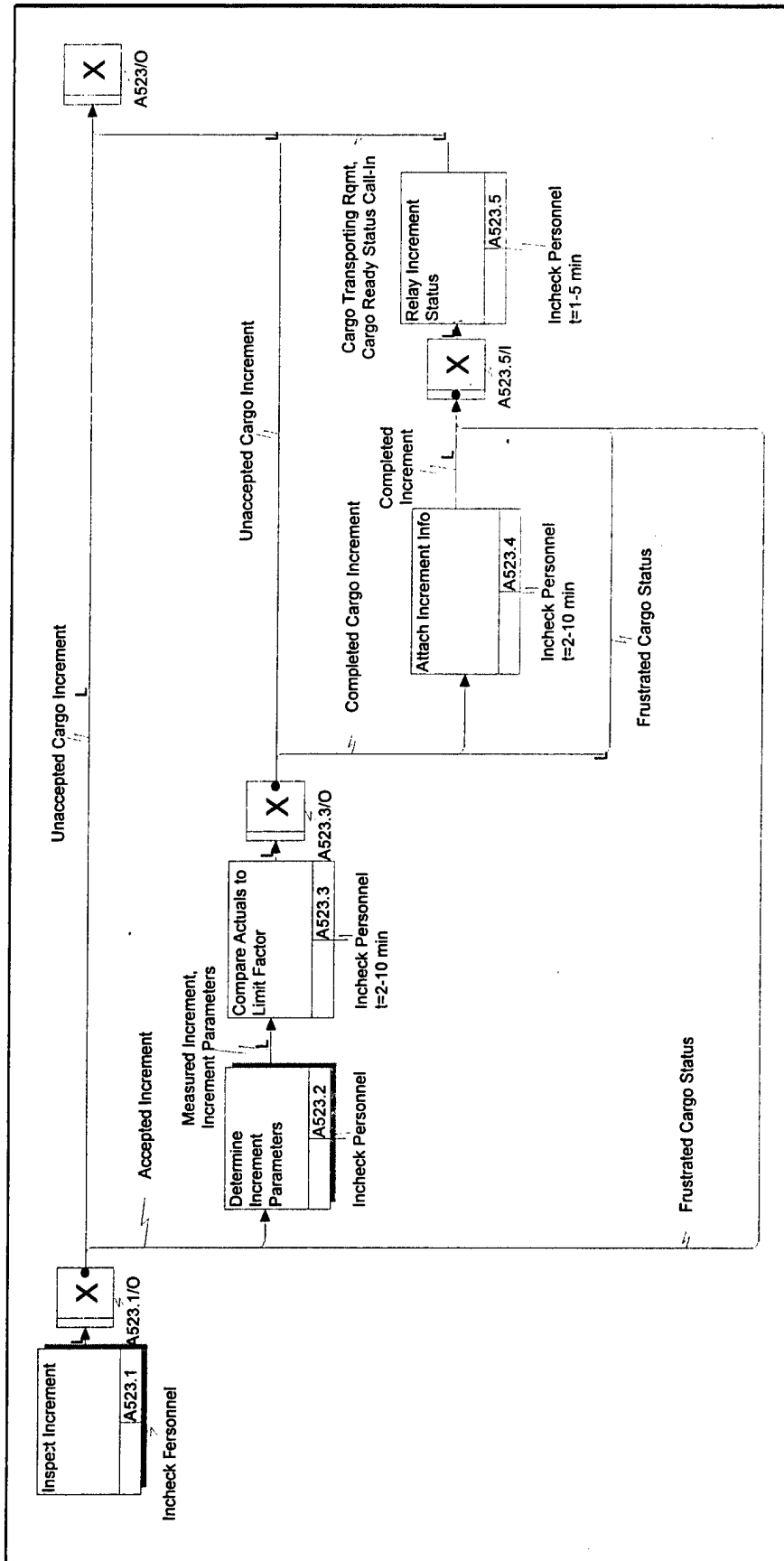
A5211: Prepare Item

<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A5214.1	Estimate Weight	Increment With Weight Info	The weight of the increment is estimated and documented.	min 10 mean 15 max 20			UDM, Unit
A5214.2	Determine Increment Size	Non-Rolling Stock Increments	Non-Rolling stock increments that have been weighed and measured.	min 3 mean 5 max 7			UDM, Unit
		Rolling Stock Increments	Rolling stock increments that have been weighed and measured.				UDM, Unit
		Rejected Increment	If the increment size does not satisfy the conveyance restrictions, the increment must be repacked.				UDM, Unit
A5214.3	Compute Carrying Position	Rolling Stock with COB Info	Rolling Stock with a computed center of balance.	min 10 mean 15 max 20			UDM, Unit



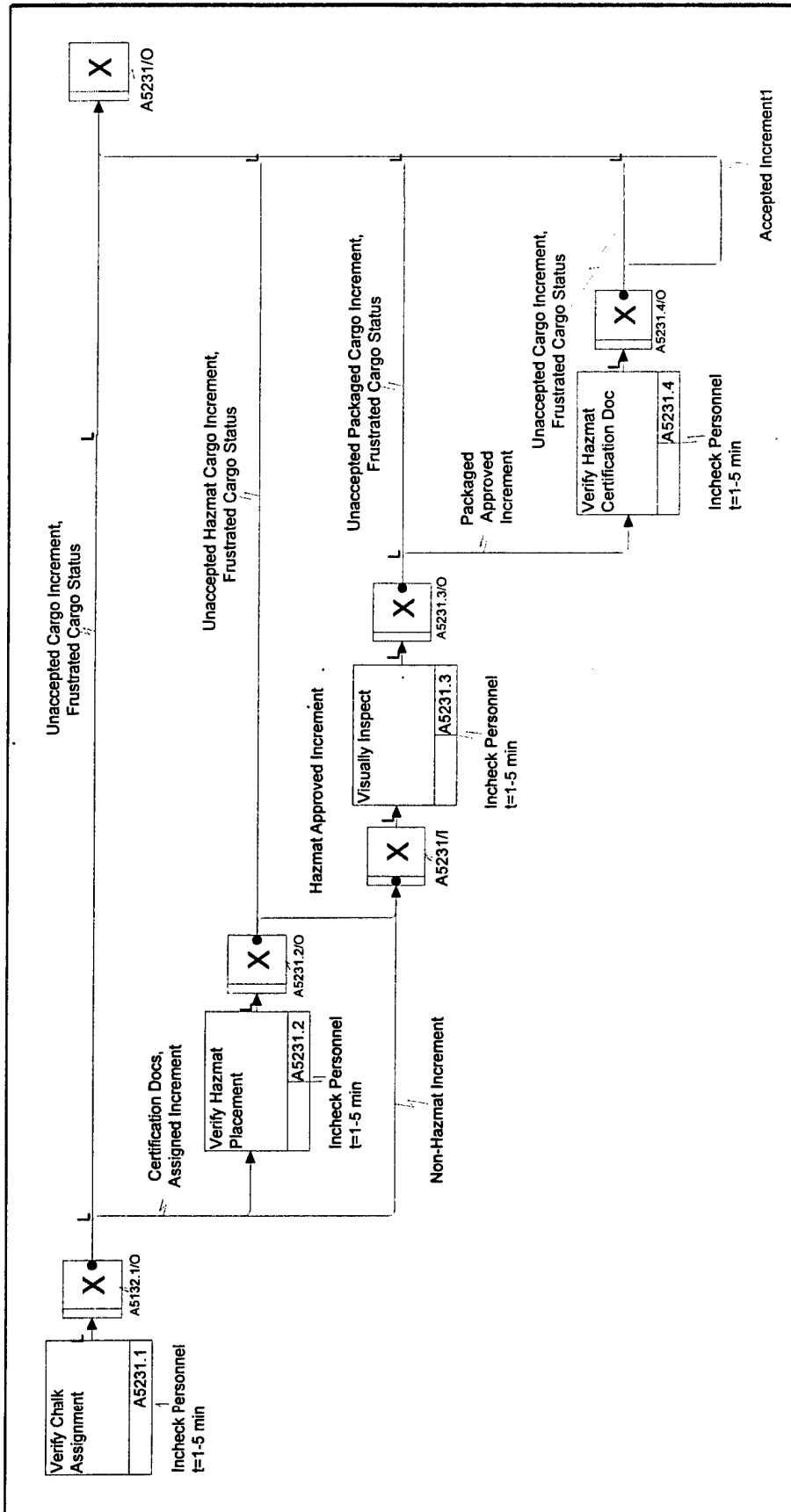
A5214: Determine Increment Properties

<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A523.1	Inspect Increment	Accepted Cargo Increment	The cargo is considered acceptable after an evaluation passed the physical condition, placement of hazardous material and hazardous documentation.	See Decomposition			CDF, In-check Personnel
		Unaccepted Cargo Increment	The cargo is considered unacceptable if its physical condition is a mess, the hazmat material is not correct, or the hazmat certification document is incorrect.				CDF, In-check Personnel
		Frustrated Cargo Status	When problems are identified that cannot readily be fixed, the UDM and DCC are notified.				CDF, In-check Personnel
A523.2	Determine Increment Parameters	Measured Increment	The increment is measured to obtain the parameters such as weight, height, width, and center of balance.	See Decomposition			CDF, In-check Personnel
		Increment Parameters	The listing of parameters for a specific increment such as weight, height, width, and center of balance.				CDF, In-check Personnel
A523.3	Compare Actuals to Limiting factors	Completed Cargo Increment	If the cargo parameters fall within the conveyance load limitations, the increment is accepted.	min 2 mean 5 max 10			CDF, In-check Personnel
		Unaccepted Cargo Increment	The increment parameters are compared to the conveyance load limitations, and the increment is unacceptable if they fall outside the limitations.				CDF, In-check Personnel
		Frustrated Cargo Status	When an increment is unacceptable, the UDM and DCC are notified of the problem.				CDF, In-check Personnel
A523.4	Attach Increment Info	Completed Cargo Increment	All the cargo documentation, including the placard, is updated with the information collected during the in-check.	min 2 mean 5 max 10			CDF, In-check Personnel
A523.5	Relay Increment Status	Cargo Transporting Rqmt	The DCC is notified when all the increments of a chalk are ready to be transported from the in-check to the marshaling yard.	min 1 mean 2 max 5			CDF, In-check Personnel
		Cargo Ready Status Call-In	The DCC is notified when a chalk is completed through the in-check, or when a cargo is frustrated.				CDF, In-check Personnel



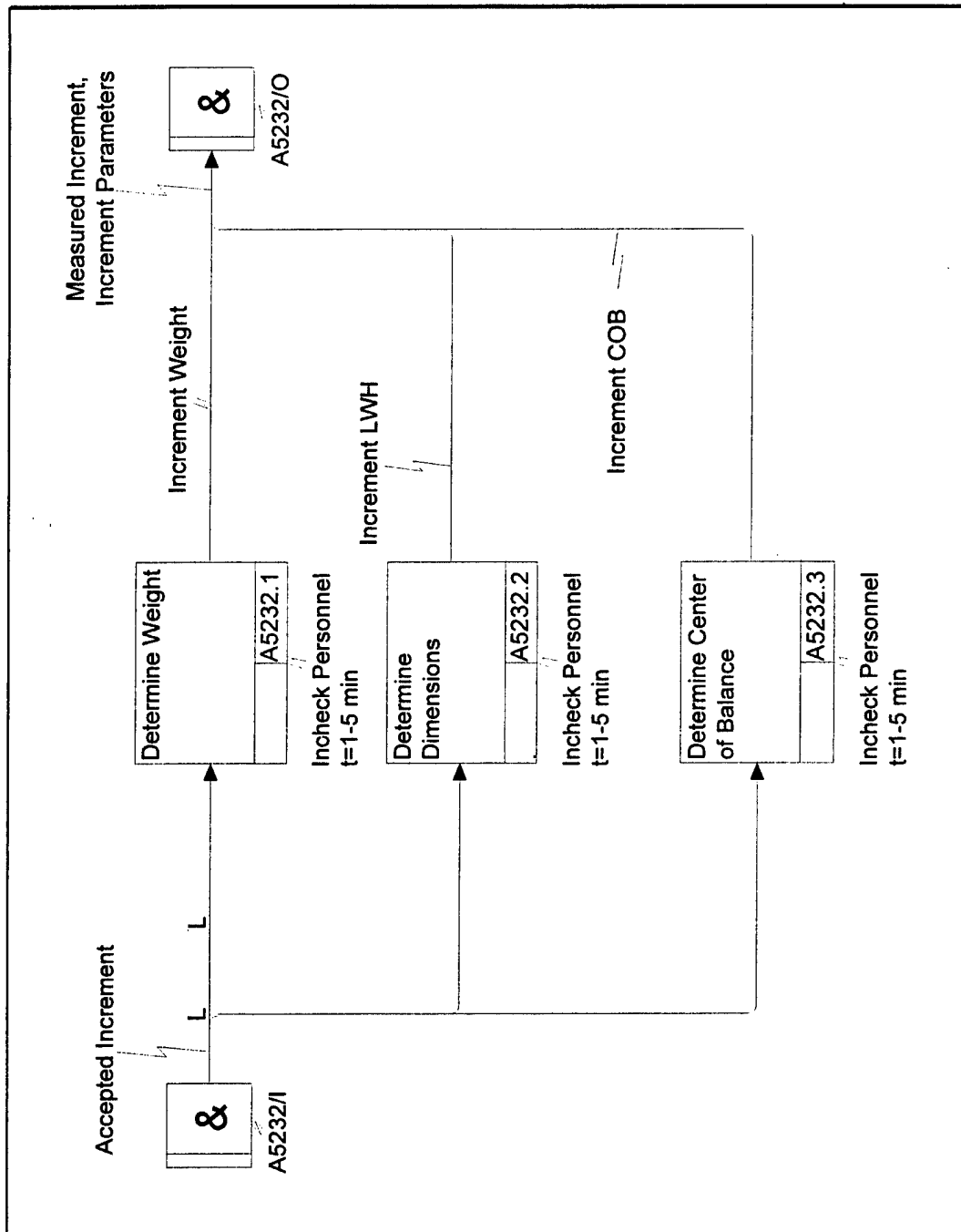
A523: In-Check Cargo

Node Number	Process Name	Output/ Product	Description	Time to Complete (in minutes)	Frequency of Occurrence	Exceptions/ Rules Variation Factors	Resource
A5231.1	Verify Chalk Assignment	Assigned Increment	The cargo increment has been matched to a specific chalk.	min 1 mean 2 max 5			CDF, In-check Personnel
		Unaccepted Cargo Increment	If the cargo does not identify the chalk it is to be deployed on and it cannot be linked with an assigned chalk, then it is considered unacceptable.				CDF, In-check Personnel
		Frustrated Cargo Status	When a cargo cannot be matched to a chalk, the UDM and DCC are notified that it is considered frustrated.				CDF, In-check Personnel
		Certification Docs	If the cargo contains hazardous material, documentation must accompany the increment to show it is certified and the designated aircraft has been approved to transport the material.				CDF, In-check Personnel
A5231.2	Verify HazMat Placement	HazMat Approved Increment	The hazardous material on the increment is properly packaged and located and is considered acceptable for transport on the assigned conveyance.	min 1 mean 2 max 5			CDF, In-check Personnel
		Unaccepted Cargo Increment	The cargo is considered unacceptable if the hazardous material is not packaged properly or in the proper location on the increment.				CDF, In-check Personnel
		Frustrated Cargo Status	When the hazardous material is not properly packaged or placed in the proper location on the increment, the cargo is considered frustrated and the UDM and DCC are notified.				CDF, In-check Personnel
A5231.3	Visually Inspect	Package Approved Increment	The increment is considered approved if it was built properly.	min 1 mean 2 max 5			CDF, In-check Personnel
		Unaccepted Cargo Increment	The cargo is considered unacceptable if it is not properly built and cannot be quickly fixed at the in-check.				CDF, In-check Personnel
		Frustrated Cargo Status	When problems are identified with the increment buildup that cannot readily be fixed, the UDM and DCC are notified that the increment is considered frustrated.				CDF, In-check Personnel
A5231.4	Verify HazMat Certification Docs	Accepted Increment	The cargo is considered acceptable after an evaluation of the physical condition and pallet buildup, hazardous material packaging and placement, and the hazardous documentation identify no problems.	min 1 mean 2 max 5			CDF, In-check Personnel
		Unaccepted Cargo Increment	The cargo is considered unacceptable if the hazmat certification document is incorrect or has been signed by an unauthorized individual.				CDF, In-check Personnel
		Frustrated Cargo Status	When the hazardous material certification documentation is unacceptable, the UDM and DCC are notified that the cargo increment is considered frustrated.				CDF, In-check Personnel



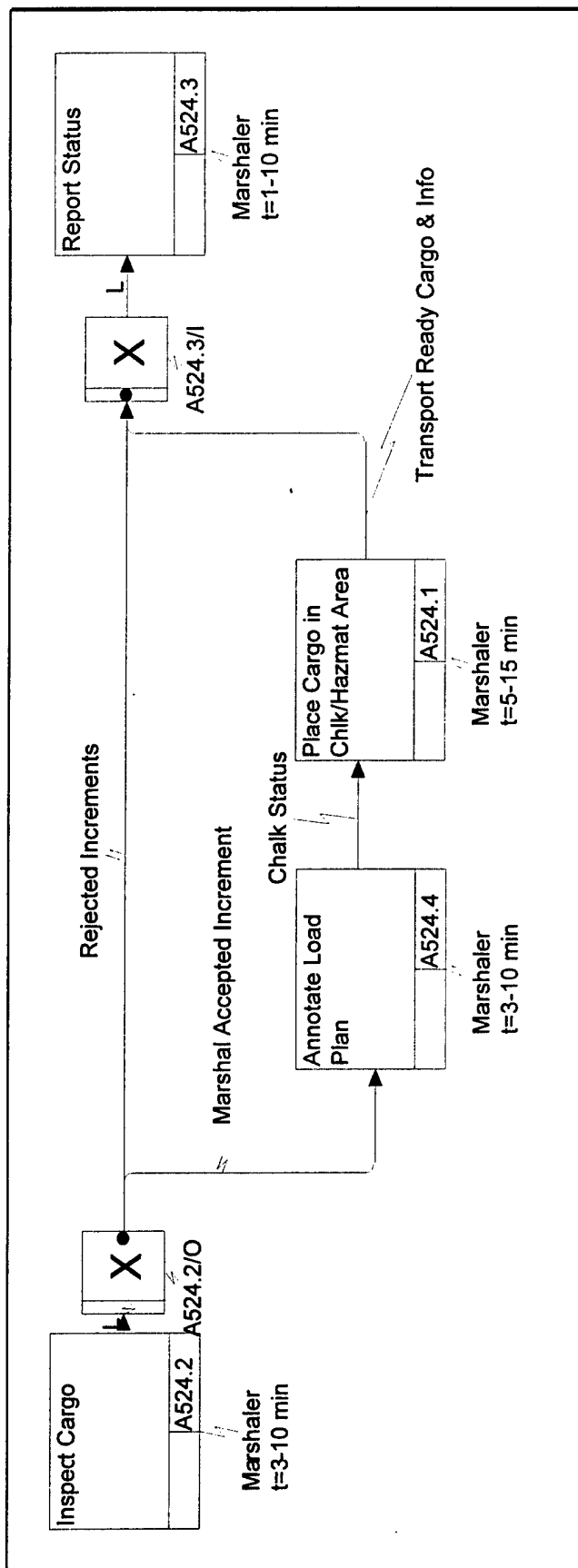
A523: Inspect Increment

<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A5232.1	Determine Weight	Increment Weight	The cargo increment is weighed to identify the number of pounds it contains.	min 1 mean 2 max 5			CDF, In-check Personnel
A5232.2	Determine Dimensions	Increment LWH	The cargo increment is measured to identify its length, width, and height.	min 1 mean 2 max 5			CDF, In-check Personnel
A5232.3	Determine Center of Balance	Increment COB	The cargo increment is measured for its center of balance point where it can be raised and it will balance so as to prevent a loading danger.	min 1 mean 2 max 5			CDF, In-check Personnel
		Measured Increment	The increment parameters for weight, length, height, width, and center of balance.				CDF, In-check Personnel



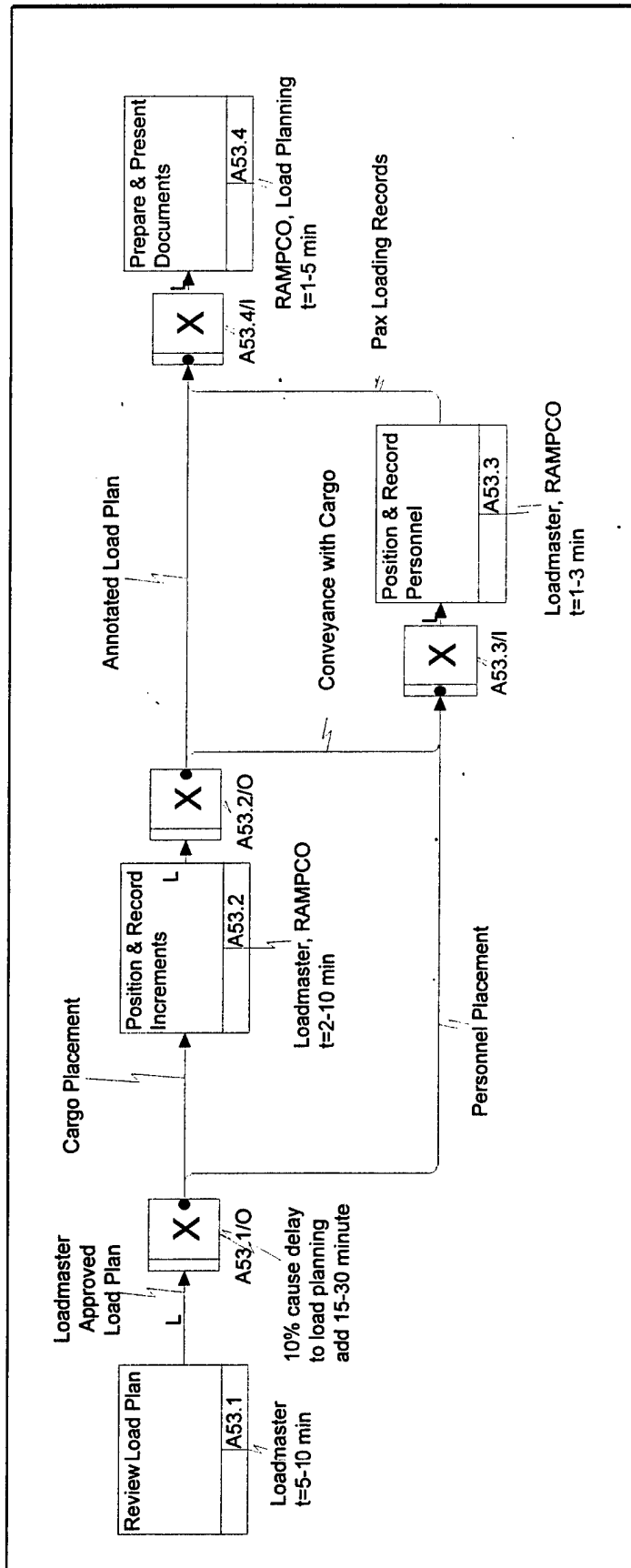
A5232: Determine Increment Properties

<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A524.2	Inspect Cargo	Marshal Accepted Increment	The cargo increment has passed a visual inspection and is ready to be placed on the appropriate conveyance.	min 3 mean 5 max 10			Marshaler
		Rejected Increment	A visual inspection of the cargo increment identifies a problem with the increment that will prevent it from being loaded on the aircraft for safety reasons.				Marshaler
A524.4	Annotate Load Plan	Chalk Status	Each increment identified in the load plan is checked off as it is inspected to show the status of all cargo for the conveyance.	min 3 mean 5 max 10			Marshaler
A524.1	Place Cargo into Chalk or HazMat Area	Transport Ready Cargo & Info	All cargo has passed all inspections, is assembled in the marshaling area and is ready to be loaded on the assigned conveyance.	min 5 mean 10 max 15			Marshaler
A524.3	Report Status	Cargo Transporting Rqmt	A request is sent to RAMP/CO to move the cargo from the marshaling yard to the assigned conveyance.	min 1 mean 2 max 10			Marshaler
		Cargo Ready Status Call-In	The DCC is notified that the cargo is assembled in the marshaling yard and is ready to be loaded on the assigned conveyance.				Marshaler



A524: Accept in Marshaling Area

<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A53.1	Review Load Plan	Load Master Approved Load Plan	The Load Master reviews the final load plan, which specifies the positioning of cargo on the conveyance, along with information on hazardous cargo, and makes adjustments, as he deems necessary.	min 5 mean 7 max 10			Load Master
A53.2	Position & Record Increments	Conveyance With Cargo	When all cargo is loaded on the conveyance, the conveyance is ready for the passengers to board.	min 2 mean 5 max 10			Load Master, RAMPCO
		Annotated Load Plan	As each cargo increment moves onto the conveyance, the Load Master confirms the move by designating it on the final load plan.				Load Master, RAMPCO
		Deployed Increments	The groupings of cargo that have been placed on the transporting conveyance.				Load Master, RAMPCO
A53.3	Position & Record Personnel	Deployed Personnel	All deploying personnel and cargo are aboard the conveyance and ready to leave the deploying site.	min 1 mean 2 max 3			Load Master, RAMPCO
		Pax Loading Records	As each person enters the conveyance, the Load Master confirms his or her names against the list provided by the PDF.				Load Master, RAMPCO
A53.4	Prepare & Present Documents	Manifest	The manifest is finalized identifying all passengers and cargo aboard the conveyance.	min 1 mean 3 max 5			RAMPCO, Load Planning CMOS CALM COMPES
		Deploying Call-in	The DCC is notified when all cargo and passengers are aboard the conveyance.				RAMPCO



A53: Prepare for Transport

APPENDIX E

STRENGTHS, WEAKNESSES, AND DPIs

E.1 INTRODUCTION

DPIs for the wing-level deployment process were developed through an in-depth understanding and analysis of the deployment process from a user perspective. Through this perspective insights about the strengths and weaknesses of the process were identified and integrated with user comments and suggestions about the process. By developing ways of building on the process strengths and correcting the weaknesses, the individual DPIs were developed and categorized into groupings of information systems, process, training, policy, and personnel attitude. The remainder of Appendix E presents the DPIs by category. Within each category is a listing of strengths and weaknesses. Within each grouping, a listing and discussion of the strengths and weaknesses provides the foundation for the DPIs. Following the strengths and weaknesses is the presentation of the DPIs within the category.

E.1.1 Information Systems

Information represents a critical aspect of the deployment process. Through the streamlining of the data within the deployment process and the improved use of information systems for handling, processing, integrating, and interfacing the information with the user, significant improvement benefits will be realized. While only one DPI addresses all aspects of the deployment process, the implementation of this DPI is not meant to be as a single, centralized information system. Rather, as described below, the concept envisions a multitude of individual systems effectively integrated together. Some of the required information system modules already exist or are being developed, but possibly requiring adjustments to satisfy the full requirements of this DPI.

Strengths

- Relatively consistent information flow among sites
- "Home Grown" information systems being developed
 - * Personnel empowered to act on information
 - * Agreement that standard systems not totally accepted
 - * Commonality among "home grown" information systems
 - * Organizational boundaries being addressed through "home grown" system definition

Weaknesses

- Isolated Information Systems
 - * Manual information transfer increases time and decreases accuracy
 - * Personnel are more information handlers than information analysts and decision-makers
 - * Required information is not always available to decision-makers
 - * Minimal training, documentation, and support available
 - * Localized information systems being developed

Strengths

Relatively consistent information flow among sites

Regardless of the deploying base selected or the unit type selected, the types of information considered and processed, as part of the deployment remained relatively consistent. The technologies used to access, process, and store the information varied across the sites and units, but the basic information did not.

"Home Grown" information systems being developed

The majority of units were not fully supported by Air Force established information systems. Because of this, many units developed their own "home grown" information systems that supported their specific information handling requirements. While having non-standard, "home grown" systems in place is not the most effective approach for the

overall deployment process, these systems provide real value to the unit and the LOG-AID analysis effort. The development of the "home grown" system demonstrated the individual unit's willingness to take control of the responsibilities and to develop those tools they felt necessary to effectively accomplish their operational and deployment activities. In taking their actions, a united statement was made that current standard systems are not providing the support needed to get the job done. As the various "home grown" systems were compared across units, the commonality among those systems became very apparent. While some were more elaborate, further developed, and more effectively designed, the basic concepts of the systems and the goals of the tools remained very consistent across the unit implementations. Finally, in developing the "home grown" information systems, the units, and especially individuals within the units, made important steps in understanding how their specific task responsibilities interface with interfacing organizations and individuals.

Weaknesses

Isolated Information System

While the "home grown" information systems provide strengths on which to build, they also present weaknesses that must be overcome in the design and development of an integrated information system. Through their "home grown" development, isolated or non-integrated systems required the manual transfer of information among the systems. This manual transfer may be in the form of a disk transfer or a manual reentry of the information. This increases performance time while potentially decreasing the accuracy of the information. Because of this limited interface capability, unit individuals spend a significant amount of their time handling information rather than analyzing the information and making processing decisions based on the information. The time and accuracy delays also provide the possibility that the necessary information will not be available to the decision-makers when needed.

In addition to information availability, "home grown" systems present significant problems in that minimal training and documentation usually exist to support the system.

While the developer remains on site and is available to use and maintain the system, the effectiveness of the system continues. However, because of the military environment in which personnel get transferred, the effectiveness of these systems are reduced or possibly eliminated when the developer is transferred. Thus, while "home grown" or localized systems provide important benefits to the deployment process, they also present significant problems with respect to providing a deployment support capability that extends beyond the unit boundaries.

E.1.1.1 Information DPI

Implement highly integrated information systems across levels of command, across and within deployment and reception sites to include a task receipt-to-airlift-manifest information system.

(i.e., Apply an information processing system that links and transfers information throughout the Wing-level deployment process and provides decision suggestions to the deployment personnel

Optimizing the operational effectiveness of the deployment process with respect to information requires baseline rules that facilitate information access and handling as well as minimizing the information interpretation currently required by deployment personnel. Through the development and implementation of an integrated information system, the personnel supporting the deployment would spend much less time being information handlers and more time on their truly important task of decision-making. In accomplishing this change in focus, this DPI concept eliminates the manual information transfer among personnel and existing systems, and then generates and presents a suggested decision. The augmentee reviews the information and suggested decisions. When acceptable, the individual sends the information back into the information systems for continued use throughout the process.

Facilitating the development and implementation of the integrated information systems requires identification of the numerous modules that will eventually form the final systems. Some of these modules are identified and described in the following paragraphs.

E.1.1.2 DSOE Module

The Deployment Schedule of Events (DSOE) module provides the capability to quickly generate a schedule for use in guiding the deployment process and in helping identify the need for processing adjustments to meet the goals of the deployment.

E.1.1.3 DPViz Module

The DPViz module analyzes the process segments of planning, deployment, movement, reception/beddown, and employment. The DSOE module for the establishment of baseline segment time averages will initially support the deployment segments, which include preparation and loading. DPViz measures project completion times and suggests actions to help expedite out-of-bounds processes.

E.1.1.4 UTC-DT Module

The Unit Type Code-Design and Tailoring module provides planner with the capabilities to analyze equipment and manpower requirements for a specific operational scenario and recommend quantities needed to accomplish the mission. In iteration with Integrated Deployment System, UTC-DT generates force-tailoring recommendations at the individual equipment level based on specific mission requirements. This on-the-fly tailoring is critical to attaining the Agile Combat Support objective or reducing the deployment footprint.

E.1.1.5 Commander Selection Module

The Commander Selection Module evaluates information related to the personnel identified for a chalk and identifies the person meeting the necessary qualifications. Once identified, the tools verify the selection with the UDM and prepare the necessary materials.

E.1.1.6 Overlap Selection Module

The Overlap Selection Module assesses the TPFDD to determine which unit are being deployed to which locations and their deploying timeframes. From this information, the module generates a deployment schedule that denotes the overlap of units positioned at

the same locations. This information is feed to UTC-DT as part of the information needed to optimize the sharing of resources among units, thus supporting the tailoring of UTCs.

E.1.1.7 Augmentee Selection Module

The Augmentee Selection Module helps determine the type and level of deployment activities needed to support a tasked deployment effort. From this information, the module identifies the type and number of augmentees required and uses this information to suggest to the UDM a selection of augmentee to support the deployment effort. Once approved by the UDM, the module notifies those augmentees of their assigned duties.

E.1.1.8 Load Plan Module

The Load Plan Module accepts information about the increments and personnel being deployed as a chalk for a particular type of transport. Using this information, the module develops a 3-D presentation of the load arrangement on the transport. Presentation of the suggested load plan to the Load Planner allows for necessary adjustments to ensure flight safety.

E.1.1.9 Status Collection Module

The Status Collection Module consists of a set of processing sensors located at predefined spots within the deployment process. As cargo and personnel are processed past these spots, necessary information system collected and transmitted to the DSOE for process status update and analysis.

E.1.2 Process

Process analysis focuses on the manual activity contained in the deployment process. The process analysis evaluated each activity in terms of the products produced, the value of those products, the resources used to produce those products, and the interrelationships among the activities. This analysis identified the processing value of each activity and the critical path for the process. The DPIs identified ways of streamlining the process by maximizing the benefits provided by each activity.

The strengths and weaknesses identified in this area are listed below, followed by a more detailed explanation.

Strengths

- Good operations and flight safety
- Significant consistency across sites
- UTC concept is effective

Weaknesses

- Non-uniform tasking delivery
- Numerous load planning cycles due to inaccurate and incomplete information
- Minimal coordination between deploying units and TRANSCOM
- Deployment footprint not minimized to meet tailoring requirements of mission
- QA checks make up a significant portion of the deployment process

Strengths

Good operations and flight safety

Units spent significant time and effort planning and practicing for their operational missions as well as for the safety aspects related to their performance of their missions. Thus, from an operational perspective, units are ready mission operations.

Significant consistency across sites

During the data collection and analysis effort for the LOG-AID program, numerous sites were visited and personnel interviewed. Insights gained from this effort highlighted the fact that regardless of the location and the type of units, there existed significant consistency across these varied locations. This consistency was obvious in the types of information associated with the location and the general process by which they handled their deployments. The technologies and techniques used to handle and process the information and the manner in which the deployment process was implemented varied somewhat from location to location, but the underlying concepts and goals remained consistent.

UTC concept is effective

Through the discussion with personnel there existed a disagreement as to the effectiveness and value of the UTC concept. Some believed the UTC concept was useful while others felt the concept should be eliminated, the items selected for deployment using a bottom-up approach. Our analysis provide the conclusion that the concept of UTC is valid, but the content of the UTCs should probable be adjusted to better reflect the mission types and duration being anticipated for the future.

Weaknesses

Non-uniform tasking delivery

Deployment taskings are anticipated and received in many different ways. Units anticipate taskings using information received from CNN; through rumors and phone calls from personnel contacts; and through unofficial and official taskings. Units respond to these taskings in a leaning-forward manner to help ensure they met the timeline they will receive once the tasking is official. The current deployment process limits the unit's ability to perform their day-to-day operations while reacting to the official deployment tasking once it is received.

Numerous load-planning cycles due to inaccurate and incomplete information

The tasking, both unofficial and official, causes units to lean forward in preparing for deployment or performing the actual deployment. Even after the receipt of the official deployment tasking, changes to the tasking arrive on a fairly regular basis. In response to each unofficial, official, or change to the tasking, the load planning continues, but because of its relative slowness, has trouble getting completed so as to become an effective part of the deployment process decision-making. Rather, each cycle of load planning needs to be completed quickly enough to help control the deployment footprint and to help establish the transportation requirements.

Minimal coordination between deploying units and TRANSCOM

The deployment taskings for a mission must go to both the bases and units identified for deployment and to TRANSCOM to initiate their planning to provide the most effective transport. Because of the time requirements at the unit to identify the resources for deployment and to relay those requirements to TRANSCOM, TRANSCOM would not have sufficient reaction time to supply the necessary transport. Rather, TRANSCOM uses the standard UTC content definitions for the UTCs identified in the tasking as the basis for determining the type of transport allocated and the schedule for moving among deploying sites. This non-coordinated

communications delay causes a conflict with respect to who is the driver for determining the transportation requirements.

Deployment footprint not minimized to meet tailoring requirements of mission

When tailoring occurs as part of the unit planning for deployment, the level of tailoring often focuses on fitting into the allocated transport. The focus of the tailoring should instead be aimed at effectively and efficiently satisfying the mission goals.

QA checks make up a significant portion of the deployment process

In looking at the processing for both personnel and cargo, there are only two situations where the basic states of those resources are changed. The first is with respect to the preparation of those resources for deployment at the unit level. The second is the loading of those resources into the transport for movement to the deployed site. The other deployment activities relative to those resources focus on ensuring the primary activities, especially the unit preparation, are completed correctly. For example, the pre-inchecks performed at many locations, the CDF and PDF processing, and the marshalling area check processing represent activities that should only change the status of those resources if the unit did not perform their duties accurately and completely. Often time the approach to addressing a deployment preparation problem is to insert additional inspections to spot and correct the problem after it occurred rather than identifying the cause of the problem and correcting the cause.

E.1.2.1 Maximize Production and Minimize Inspection Activities

(i.e., Improve cargo/personnel preparation so that pre-incheck, in-check, marshaling check, and most PDF stations can be reduced or removed.)

Within the perspective of the LOG-AID program, the military capability consisting of both cargo and personnel required to satisfy a specified tasking are prepared and loaded onto a conveyance for deployment to a designated area. Within this process, the personnel and cargo should not change from the time of preparation until the loading is complete. Therefore, the personnel and cargo should be able to move directly from the preparing unit to the conveyance.

However, within the current deployment process, there exist checkpoints within the process where reviews and inspections of the personnel and cargo occur to ensure that previous preparation activities were performed accurately. The number and type of these checkpoint activities vary somewhat from site to site, with the standard checkpoints being the Personnel Deployment Function (PDF), the Cargo Deployment Function (CDF), and the marshaling area check. Because their primary purpose involves verifying and possibly correcting problems initiated during preparation, the intermediate checks represent duplications of activities that cover up processing problems within preparation.

The DPI removes all of these intermediate check and convenience points, leaving only those that truly benefit the deployment process. The one point providing continued value may be the chalk area that acknowledges the receipt of the deploying resources and reduces the loading time of the conveyance once it arrives.

E.1.2.2 Adjust Responsibilities and Improve Integration of Units, Manpower, and Personnel

(i.e., Improve the information exchange to provide the units with up-to-date, accurate information.)

Personnel and Manpower remain the maintainers of the Personnel Data Systems (PDS) database but the UDMs must have direct access to the information. In this way, the UDM interface to the PDS could make a recommended selection for the UDM based on eligibility and present to the UDM the full list of those available with a notation indicating the persons eligibility and the computer recommended person. From this list, the UDM could make his final selection without direct interaction with Manpower and Personnel. Once selected, those names would be held in a temporary file and adjusted as other problems arise during the deployment requiring replacement selections. At the completion of the deployment, the manifest is automatically matched to the Deployment Requirements Manning Document (DRMD) to confirm the final list, with the manifest being considered the most accurate document. This temporary file could then either be used directly to update the PDS database or given to Manpower and Personnel for them to update the PDS database.

Currently there is cyclic processing that occurs between Manpower, Personnel, and the unit. Within this process, Manpower and Personnel have two primary responsibilities. One, they are responsible for maintaining the personnel information database. Two, they are responsible for providing the personnel names possessing the necessary Air Force Specialty Code (AFSC) and skill, the personnel deployment eligibility status, and developing the travel orders for the deploying personnel.

The first problem is with the maintenance of the personnel database. At most sites the personnel database is not up to date even though the units have provided personnel change information. The lack of an accurate personnel database significantly reduces the usefulness of the information. Currently, many units have developed their own personnel databases which they keep up to date on a daily bases with very little effort once the

initial loading has been completed. Because of this, the units usually pay little attention to the personnel information generated by Manpower and Personnel.

The second problem is that the units have, or could have all the information needed to generate the travel orders. Personnel could generate the common information associated with a UTC deployment and the unit could automatically generate the deployment orders as a by-product of the name assignments. Within the PDF and the unit, a tool would be necessary to adjust the travel orders as personnel changes are made during processing.

E.1.2.3 Capitalize on Cargo and Personnel Processing Similarities

(i.e., Develop a single information system that documents both cargo and personnel information.)

While the personnel and cargo requirements are contained within almost every standard UTC, their tracking and processing remains independent throughout unit readiness, deployment, and employment activities. Supporting this process requires independent information systems, either manual or automated, separate personnel to track status and select resources for deployment, and separate actions to develop, maintain, and train to the two information processes.

However, few differences exist between the information requirements of personnel and cargo. Figure E-1 presents an example of the similarities between personnel and cargo data that allow for the consolidation of personnel and equipment data into a single database, thus capitalizing on their commonalities. For example, as represented in Figure E-1, both personnel and equipment possess unique identifiers in the form of a Social Security Number (SSN) for personnel and a serial number for equipment. Both personnel and equipment possess non-unique names, and both are assigned to originating or owning positions but may be located at a specific location. Personnel are categorized by their AFSC while equipment is categorized by a part category. One common information aspect of specific interest is the record listing. Personnel possess medical records to include the type of shots needed, when last administered, and when to be administered next. In much the same manner, equipment possesses maintenance records, to include the

type of maintenance needed, when last performed, and next performance time.

There does remain, however, some information not common between personnel and equipment, such as personnel rank for which equipment has no corresponding information. While the differences between personnel and cargo still have to be addressed, understanding the common and different information requirements for personnel and equipment provides the bases for developing one information system with the capability to handle both personnel and equipment. A common information structure and system reduces the information development and maintenance time for the systems, reduces the training time, reduces the number of personnel required, and possibly reduces the actual processing time for maintaining records and preparing for a deployment.

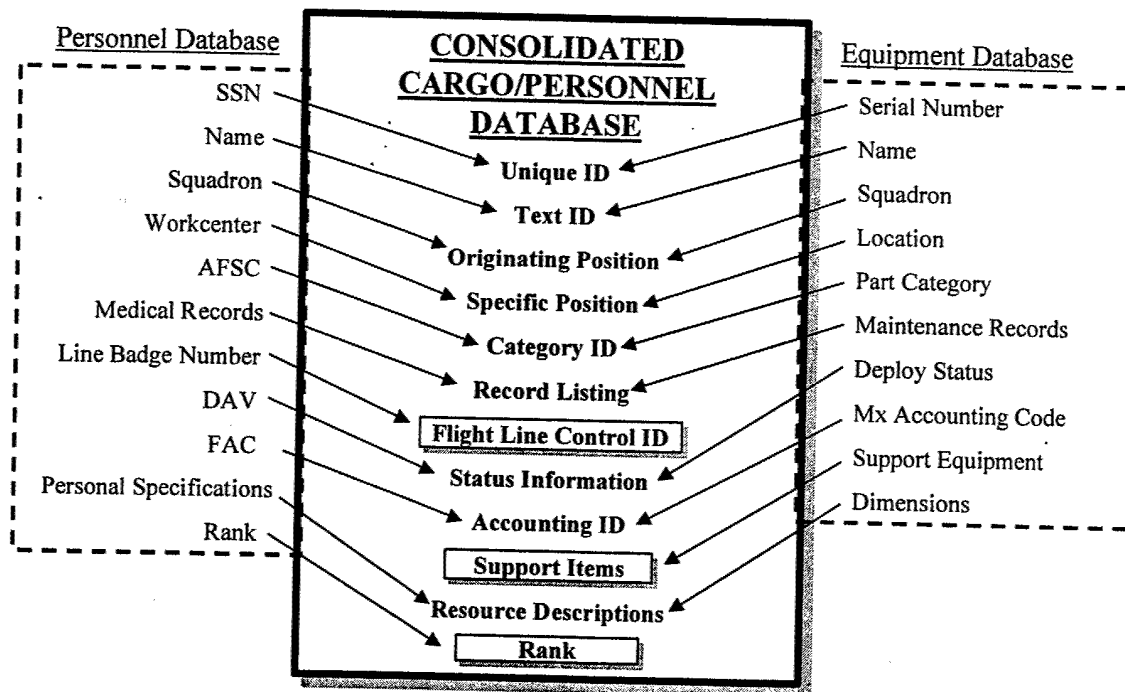


Figure E-1. Personnel and Cargo Possess Common Information Requirements

E.1.2.4 Collect Process Status and Effectiveness Information using Passive Means

(i.e., Reduce the need for deployment personnel to manually report to the DCC, and to collect and analyze processing information for continuous process improvement.)

At predefined points during the deployment process, the deployment personnel are responsible for reporting to the DCC regarding the current status of the deployment process. For example, the CDF personnel call in when an increment successfully passes inspection and is ready for movement to the marshalling area. The marshalling area controller tracks the arriving increments for each chalk and notify the DCC when a chalk is complete within the marshalling area, thus waiting for loading into the transport. If during the processing, an increment does not meet the processing schedule, a call to the DCC triggers the actions necessary to determine the actual status of that increment along with the actions necessary to get the process back onto schedule.

These event call-in times are noted in the DSOE as "no later than" times, meaning that a status call to the DCC must be made by that time. However, for a number of reasons, personnel may forget to make the calls or may wait until the stated time to call even though their preparation work was completed much earlier. In either case, the inaccurate status information provided to the DCC impacts the effectiveness of the deployment operation. In addition, when the deployment workload is heavy, the time required to provide the status update to the DCC might actually delay the deployment processing.

The intent of this DPI is to provide the capabilities necessary to identify the completion of critical steps in the process and to report those to the monitoring operation, which is currently the DCC, immediately. This passive status collection provides accurate and timely status information, and removes the reporting responsibility from those whose attention should be focused on accomplishing the deployment actions rather than performing administrative activities.

In addition to supporting the actual deployment, the information collected also provides the basis for generating the post-deployment brief information, for evaluating the

effectiveness of the deployment process in terms of a continuous process improvement analysis, and for providing support in the training of the deployment process.

E.1.2.5 Improve In-Transit Visibility

(i.e., Provide the capability to know the location of deploying resources at any point in time during the deployment and up to the beginning of employment.)

Currently the TCN is allocated to an increment number identified in the LOGDET. With this use of the TCN, any combining of pallets results in a discrepancy of what the transportation system believes is included in a TCN. In the future the TCN should be assigned to a pallet in the later stages of the process. With accurate information exchange they will know the actual cargo included in the TCN and not what the LOGDET stated should have been included in the TCN.

E.1.2.6 Control Tasking Receipts into the Base

(i.e., Have everyone work to the same set of mission requirements.)

Currently the taskings come from different places and often received in different places. This communication problem is a result of the loosening of the standards defined in the regulations. Sometimes they receive taskings from their MAJCOM, sometimes from other commands, and sometimes from other services. Sometimes the tasking comes into the base to the battlestaff, sometimes the IDO, sometimes Manpower and Personnel, and sometimes the unit commander or UDM. It is recommended that the standards be more stringent on the flow of orders and taskings down through the DoD infrastructure. It should be through one command to the Wing Commander, and not the units or the IDO. This would help to minimize all the effort spent in validating various directions.

E.1.2.7 Reduce the Number of Coverage Days Included for Initial Deployment

(i.e., Considering the goals of lean logistics, shorten the number of days considered during employment before sustainment begins.)

With reduced deployment turnaround and with the implementation of Lean Logistics, the current deployment requirement for 30 days of supplies should be reducible to something less, possibly 20 days, thus reducing the amount of materials to be transported in the near term. The actual time period would depend on a number of issues such as the resupply capabilities at the reception site location. But the major goal aims at minimizing the resources required for deployment during the initial phase of moving into a mission theater.

E.1.2.8 Better Define the Objective and Criteria for UTC Tailoring

(i.e., Establish a common understanding among units that UTC tailoring should be done to best satisfy the mission requirements.)

Through LOG-AID, the intent of UTC tailoring is to minimize the resources deployed to a reception site while retaining the capability to accomplish the designated mission. Currently, tailoring is viewed from two aspects that are sometimes conflicting. Current tailoring is often performed so as to fit the resources into the airlift provided for transport rather than to the mission requirements. Two, units vary in opinion as to whether or not tailoring should be done. This DPI aims at establishing the perspective that tailoring information system not only acceptable, it is needed to satisfy future mission goals.

E.1.3 Training

Training analysis viewed the deployment process from the perspective of those resources, unusually referred as augmentees, responsible for performing the deployment rather than the training of those resources being deployed. This analysis identify the type of training provided, the time required for the training, the effectiveness of the training, and the benefits of the training received by the individual augmentee. The training DPIs identified ways of minimizing the impact training has on primary responsibilities of those

working as augmentees. The impact relates mainly to the time required to obtain the training and the effectiveness of the training.

Strengths

- Heavy focus on augmentee training

Weaknesses

- Exercises are not representative of real-world deployments
- Difficulty tracking and keeping qualified augmentees
- Variations in interpretation

Strengths

Heavy focus on augmentee training

Majority, if not all, the bases visited viewed augmentee training as an important aspect of base operations. Training ranged from classroom lessons usually lasting a few days, to processing observation, to hands-on practicing, to the performance of actual deployments. While personnel sometimes objected to delaying their primary work responsibilities to accommodate the training, the augmentee work force accepted the training as a high priority requirement.

Weaknesses

Exercises are not representative of real-world deployments

Most exercise scenarios focused on the deployment of full or standard UTC capabilities. In contrast, many of the evolving real world deployment requirements focus on moving partial UTCs to better address the tasked missions objectives. When exercising to deploy full UTCs, the needs are reduced for the level of planning reduces, for tailoring, for coordination among units, and for the generation of non-standard increment. Real world deployment taskings dramatically change these training scenario assumptions. Thus, during a real world deployment, trained personnel must adjust their trained capabilities and assumptions to effectively address the requirements of the deployment tasking.

Difficulty tracking and keeping qualified augmentees

A conflict existed between the goals of deployment and the transfer requirement of the Air Force. For efficiency, deployment processing requires trained and experienced augmentees to support the deployment, with the augmented work force composed, to a very large extent, of military personnel. To train these augmentees and to have them available when needed requires significant financial resources. In contrast, the Air Force transfers personnel on a regular cycle of about two years, and with a policy of not documenting the augmentee skills as part of the personnel record. Thus, when an individual who is trained as an augmentee at one base moves to another base, those augmentee skills are lost unless the transferring individual volunteers to apply his experience at the new base location. Thus, for a deployment training perspective, each base represents an island of deployment skills, with no official way of moving and applying that skill at another base.

Variations in interpretation

While significant effort is placed in the training of augmentees, situations still exist in the deployment process where the process understanding gained through the training differs among individuals, resulting in conflicts and processing delays. For an example, a real world situation identified to have occurred at a number of deployment sites begins with a unit developing an increment in a manner they consider to be correct and accurate based on their pallet building knowledge gained through training. Upon arrival at the CDF, the increment was declared to be frustrated based on a problem with the placement of hazardous materials in the increment. The justification for frustrating the increment came from the understanding gained through training. After much debate and time delay, the increment was determined to be safe for transport as built by the unit. The point being that both unit and CDF personnel meant to be correct in performing their activities, but they simply gained a different interpretation of the correctness from the training.

DPIs

E.1.3.1 Apply Real-World Training Characteristics to Exercises

(i.e., Train to both fraged and full UTC requirements.)

While they usually practice in terms of satisfying a complete UTC, they are usually requested to supply bits and pieces of equipment and small number of personnel. This leads to the situation where the unit has to wait basically to the last minute to establish the packing and loading of the materials, and prevents them from "leaning forward" in the preparation for deployment and forces them closer to a "just-in-time" type of deployment concept.

E.1.3.2 Maximize Training Benefits

(i.e., Tracking of UDM and deployment support personnel training as they transfer among bases.)

Significant investment is placed in individuals during a base tour of duty with respect to training them to perform as augmentees during deployment operations. For a number of reasons, records of this training do not stay with the individuals as they transfer among bases. Thus, the base receiving the previously trained individual does not benefit from the individual's experience gained at the previous base and must again invest resources before using the person as an augmentee.

Tracking personnel with respect to their deployment training as they move from base to base and using those skills in some manner would help maximize the investment made in that individual. This would help reduce the training requirements for the current deployment process and would further reduce the training requirements if the deployment process were more unified across bases. Gaining this benefit must not be accomplished at the expense of the individual, specifically by placing them into the same augmentee position following each transfer. Rather, transferring personnel with skills gained as augmentees could be used, for example, in the training of inexperienced individuals, supporting the improvement analysis of the bases deployment process, or development of

the individual deployment processing manuals.

E.1.3.3 Include Total Process Training

(i.e., Provide general, total process training in addition to the current focused training.)

Currently, augmentees primarily receive training focused on specific segments of the deployment process. During deployments, this focused training does not provide the insight needed to understand the impact a given situation can have on the overall success of the deployment process. As a result, individual augmentees may make slight adjustments to their part of the process, producing processing problems for individuals further down the processing chain. Through the implementation of total process training, the change-to-impact relationship does not prevent augmentees from making slight processing changes, but helps ensure their changes do not produce a negative impact on the performance effectiveness of the overall deployment process.

E.1.3.4 Incorporate Training and Efficiency Evaluation Capability into the LOG-AID System

(i.e., Embed training sessions into the tools used for deployment and evaluate augmentee efficiency from these sessions.)

Individuals primarily focused on for training are the load planner and the UDM. The intent would have two levels of training. One level would be to have training scenarios entered into the system and allowing personnel to practice. The other level would be to have testing scenarios entered into the system; the personnel perform the scenarios, with the results and possibly the grades presented back to the personnel. This training would help accomplish a uniform understanding, the lack of which currently causes some conflicts. Specifically, there are often differences of opinion among the various QA checkpoints as to whether or not an increment is acceptable. At times this difference of opinion concerns cargo acceptance, but the time required to clear up the difference may cause unacceptable delays.

E.1.4 Policy

Current policy was not a limiting factor for the analysis of the As-Is deployment process or the development of the LOG-AID 2010 CONOP. The policy analysis focuses on the impact of current policy on the process and how deployment personnel operate to most effectively function within the constraints of the current policies. New policies development will occur following the finalization of the LOG-AID 2010 CONOP so as to control the streamlined process rather than being developed first thus possibly constraining the development of the streamlined process.

Strengths

- Establish Base Deployment Plans
- Development of individual support manuals at bases
- Flexibility through Air Force Instructions (AFIs) has encouraged and accelerated effective standardization

Weaknesses

- Multiple views on UTC tailoring
- Base deployment plan not used extensively
- Significant time and effort to develop and maintain deployment plans

Strengths

Establish Base Deployment Plans

Each base has the requirement to develop a Base Deployment Plan defining the operations of the base during a deployment effort. These plans provide a common focus to which base personnel can direct their efforts and help the build and maintain the total base team effort required to successfully accomplish a deployment.

Development of individual support manuals at bases

Some bases placed emphasis on the development of individual support manuals containing specific information related to the performance of individuals assigned responsibilities. While not specifically specified, these manuals contained such information as process step descriptions, form completion instructions, pictures of processing steps, and phone numbers for important points of contact. In addition to guiding the individual during the deployment processing, these manuals also became valuable transition training tools for personnel as new individuals took over the responsibilities for deployment. The importance of these manuals was obvious by the wear they showed.

Flexibility through Air Force Instructions (AFIs) has encouraged and accelerated effective standardization.

Many units viewed the Air Force Regulations (AFRs) as being too specific and restrictive, to the point where units felt they could not be effectively applied to their operations. The AFIs removed much of those restrictions, thus providing the units the requirements for what was to be produced but allowing the flexibility in how the units implemented the process to produce their product. While many units also disliked the AFIs because of their lack of guidance, units took the opportunity to implement their deployment processes in ways they believed to be most effective. The result of this freedom to implement was that many units independently migrated to very similar processes, regardless of their unit type. Thus, the freedom made available through the AFIs resulted in more commonality among unit processing than did the tighter direction provided by the AFRs. The commonality provided a solid starting point for developing the LOG-AID CONOP.

Weaknesses

Multiple views on UTC tailoring

Units, and particularly UDMs, view the requirement for UTC tailoring for a deployment from different perspectives. To one extreme, the view is that the tasking identifies the deployment of a UTC and the UDM is responsible for providing all the elements contained in that UTC. To the other extreme, the view is that only the UDM possess the understanding and knowledge to truly understand what a unit needs to successfully accomplish the assigned mission. Thus, the unit makes the final decision for the resources deployed. The weakness inherent in this situation is not whether one view is wrong and one is right, but rather that the two views exist. There should exist a common understanding that tailoring should be considered for each deployment tasking regardless of whether or not tailoring actually occurs.

Base deployment plan not used extensively

Once developed, the base deployment plans are usually mandatory reading for personnel transferring into the base. Following the mandatory reading, the plans are referenced on occasion, but to a great extent any referencing made of the plan is minimal at most. Thus, while the plan is important to base operations, the level of reference made to the plan is minimal relative to the resources used to develop the plan.

Significant time and effort to develop and maintain deployment plans

In terms of their size and content, base deployment plans represent a significant investment in resources of personnel and time. While majority of the resources go into the actual writing of the document, resources are also invested in the review and approval cycle as well as in the maintenance cycle to ensure the accuracy of the plan.

DPIs

E.1.4.1 Provide the UDM Capability to Produce more Deployment-Ready Personnel and Cargo

(i.e., With the UDM being the key person with respect to streamlining the deployment process, it should be viewed as a specialty skill.)

UDMs are the key management positions within the base level deployment process. As key positions, they must have the skills necessary to accurately know when cargo and personnel are prepared for deployment so as to allow for the direct transfer from the unit to the transporting aircraft.

E.1.4.2 Develop Deployment Guides for each Deployment Position

(i.e., Document deployment position information such as detailed instructions, phone numbers or points of contacts, reference pictures, etc.)

These individual deployment guides would include detailed directions for how to perform a specific deployment position; directions for information to be received, generated, and transmitted; phone numbers for important points of contact; and pictures of various items such as pallets for use as future references. These guidebooks would provide two significant benefits. One, they would guide the individual when performing the deployment task. Two, they would provide an effective transition tool as augmentees transfer among augmentee positions or among bases.

E.1.4.3 Refine the AFIs as Necessary to Best Guide the Deployment Process

(i.e., The AFIs should be developed to document and control the agreed upon streamlined deployment process.)

The AFIs have been developed to allow significant site-specific flexibility from that provided in the previous Air Force Regulations (AFRs). This flexibility appears to have benefited the deployment process in that sites have adjusted their implementations to better fit their needs, thus encouraging the site to have pride and ownership in their specific implementation. It appears, however, that this freedom of implementation diversity implementation has demonstrated their similarities because independently the

sites are developing many of same operational requirements. As the LOG-AID program develops the To-Be base level deployment process, the current AFIs should again be tightened to control the process, but probably not be tightened to the AFR level.

E.1.5 Personnel Attitude

Augmentees play a critical role in accomplishing the deployment process. However, base personnel are often reluctant to work as augmentees because of the limited value provided in terms of personal rewards. The personnel attitude DPI aims at finding ways of rewarding the augmentee so as to improve the availability of personnel as augmentees.

Strengths

- Deployment problems realized, but corrective vehicles not readily available
- Experienced personnel take charge to ensure success

Weaknesses

- Most personnel are not over-eager to be augmentees
- Personnel do not want augmentee training to remain in their personnel folder
- Commitment for exercises is different than from real-world situations

Strengths

Experienced personnel take charge to ensure success

Any one deployment effort becomes a challenging experience when unexpected situations happen and when all the good intentions of planning, training, and preparation fall short to some degree. The capabilities and ingenuity of experienced, take-charge individuals provide the leadership necessary to ensure the deployment

Weaknesses

Most personnel are not over-eager to be augmentees

Working in an augmentee position during deployment requires significant time for receiving the necessary training, and performing in various exercises and real-world deployments. Working as an augmentee does not, however, relieve the person from the responsibilities of their primary job, thus the workload builds up during the time the individual works as an augmentee. Also, working as an augmentee is not a position in which the individual receives a rating in terms of pay increases and promotions. Thus, working as an augmentee places a negative impact on the career of the individual even though the job is critical to the true objectives of the Air Force.

Personnel do not want augmentee training to remain in their personnel folder

The Air Force personnel file contains information related to the skills and performance of the individual, and used as the primary information source for awarding pay increases and promotions. It is in part through this information that individuals get assigned to jobs as they move within a base or transfer to another base. In contrast, placing the skills gained, as an augmentee in the personnel folder is not viewed as advantageous to the individual. This is for two reasons: (1) the skills are not a significant determinant for advancement, and (2) possessing an augmentee skill tends to place the individual into the same augmentee position as they transfer among bases. Rather, if the individual must perform as an augmentee, they at least want to gain a broader range of experience to expand their overall understanding and value to the Air Force.

Commitment for exercises is different than from real-world situations

The rewards placed on the performance of tasks impact the personnel attitude of those performing the tasks. In addition to providing training, deployment exercises provide the baseline by which Air Force bases and wings are rated with respect to their deployment readiness. As such, exercises receive significant visibility from

base leadership to ensure everything goes smoothly, accurately, and efficiently in accordance with a predefined process. The purpose of real-world deployment changes from one of readiness rating to one of satisfying a tasking and getting the job done without the strong restriction of having to completely follow the defined deployment process. This difference in commitment, especially by the upper command, causes the deployment personnel to view the two situations as having difference levels of importance.

DPIs

E.1.5.1 Develop a Process to Encourage Augmentees to Participate in Deployments

(i.e., Develop a reward system that benefits those working as augmentees.)

Individuals working out of their normal job description generally perform deployments. With a limited number of exercises and actual deployments, practice is limited and not all individuals are highly trained or experienced in their deployment position. Therefore, it becomes necessary to have the individuals work in an environment that is comfortable and familiar as possible. This means selecting the appropriate personnel for the appropriate deployment positions. This might include removing a person from a position assigned at a previous base, to a position that the individual would prefer to work in. The proper atmosphere in the stressful deployment environment will encourage teamwork and hand work to accomplish the given task in a time critical situation.

E.1.5.2 Develop a Process to Encourage Augmentees to be Committed to Real-World Contingencies to the Same Level as Exercises

(i.e., Ensure the Base leadership monitors and measures the effectiveness of real world deployments that encourages augmentees to work to their true potential.)

Currently, deployment exercises receive significant attention by Base leadership because the base is evaluated and rated on the effectiveness of those exercises. On the other hand, real world deployments focus on getting the job done but are not used to evaluate deployment effectiveness. This difference in deployment goals affects the focus of the

augmentees.

E.1.6 DPI Conclusion

The strengths, weaknesses, and DPIs presented in this section address the entire base/wing-level deployment process. The DPIs have been prioritized based on user inputs and can be structured to allow for their time-phased implementation as needed by each site. In this manner, operational benefits can be received early on and incrementally as the DPIs are gradually implemented. The ultimate intent is that the DPIs can be implemented at all sites, with the level of technology used to accomplish the implementation varying due the site's ability to justify the cost. Through this approach, a more consistent deployment approach will exist across bases, but more importantly, the implementation of the process using technologies within a given base can be adjusted to meet the level of deployment requirements of each site.

APPENDIX F

**LOG-AID TO-BE ACTIVITY MODEL
NODE LIST
DIAGRAMS AND TEXT
DATA GLOSSARY
MECHANISM GLOSSARY**

LOG-AID AS-IS ACTIVITY MODEL

The LOG-AID As-Is activity model presented in this appendix is a hierarchical, functional representation of the activities performed within the wing-level deployment process. This representation includes the products generated by each activity, the inputs used to produce those outputs, the controls defining how the inputs are transformed into outputs, the mechanism performing the activities, and the product relationships among the activities. The model also includes a node list of all the activities in the model, a textual overview description of each diagram, and a glossary for the interrelationship arrows. Figure F-1 contains a quick reference to the IDEF₀ notation used to present the model.

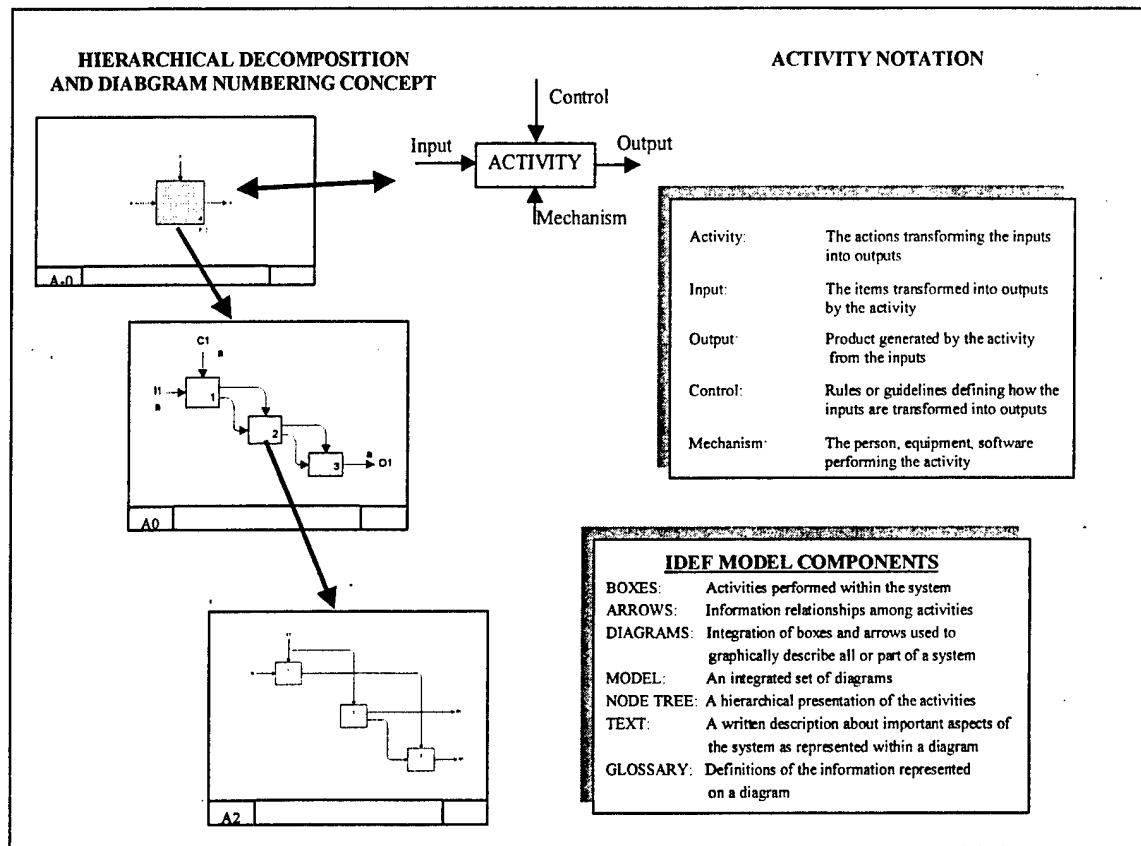


Figure F-1. IDEF0 Notation Overview

LOG-AID TO-BE ACTIVITY MODEL NODE LIST

- A-1 SCOPING THE CONTINGENCY DEPLOYMENT PROCESS
 - A-0 DEPLOY FOR CONTINGENCY
 - A0 DEPLOY FOR CONTINGENCY IN 2010 (Context)
 - A1 PLAN SITE OPERATIONS
 - A2 EXECUTE ACTIVATION PROCESS
 - A21 COMPUTE DEPLOYMENT RQMTS
 - A211 IDENTIFY UNIT OVERLAPS AT SITE
 - A2111 COMPARE DEPLOYING UNIT ON-SITE SCHEDULES TOGETHER
 - A2112 COMPARE ON-SITE UNIT SCHEDULES
 - A2113 IDENTIFY OVERLAPS FOR CONSIDERATION
 - A2114 PROMPT USER FOR VALIDATION
 - A212 LIST REQUESTED RESOURCES
 - A2121 ACCESS FULL UTC RESOURCE LIST
 - A2122 ADJUST FOR FRAGING
 - A2123 ADJUST PER LOI INSTRUCTIONS OR MAJCOM TAILORING
 - A2124 PRESENT FOR USER VERIFICATION
 - A2125 COMBINE ALL RESOURCE RQMTS
 - A213 PERFORM RECEPTION SITE SURVEY
 - A214 CORRELATE DEPLOYING RESOURCES
 - A2141 CORRELATE WITH RECEPTION SITE
 - A2142 COMPARE ITEMS AMONG BASE UTCs
 - A2143 COMPARE ITEMS ACROSS BASES
 - A2144 ASSIGN ITEM RESPONSIBILITY TO UNIT
 - A2145 VERIFY BY USER
 - A215 PERFORM UNIT TAILORING
 - A2151 DETERMINE STANDARD SUPPORT RQMT
 - A2152 ADJUST TO DEPLOYMENT DURATION
 - A2153 ADJUST TO ENVIRONMENTAL CONDITIONS
 - A2154 ADJUST TO HISTORICAL USE
 - A21541 CATEGORIZE THE DEPLOYMENT TYPE
 - A21542 ACCESS PREVIOUS DEPLOYMENTS
 - A21543 PRESENT LIST OF PREVIOUS DEPLOYMENTS
 - A21544 COMPARE DEPLOYING RESOURCES
 - A2155 VERIFY TAILORING
 - A2156 INTEGRATE ACROSS ASSIGNED UNITS
 - A22 TRANSLATE TO AIRLIFT
 - A221 COMPUTE QUANTITY
 - A222 IDENTIFY SPECIAL NEEDS
 - A223 COMPUTE AIRLIFT
 - A224 VERIFY AIRLIFT RQMTS
 - A23 DEFINE CHALKS
 - A231 IDENTIFY PARTIAL PALLETS
 - A232 BLEND ITEMS INTO INCREMENT
 - A233 IDENTIFY RESPONSIBLE UNIT
 - A234 COMPUTE LOAD PLAN
 - A235 ADJUST AND VERIFY
 - A24 EVALUATE PERSONNEL & EQUIP QUALIFICATIONS
 - A241 TRACK RESOURCE STATUS
 - A2411 RECEIVE RESOURCE STATUS INFO
 - A2412 UPDATE THE MAINTENANCE & STATUS RECORDS
 - A2413 IDENTIFY RESOURCES REQUIRING DEPLOYMENT PROCESSING
 - A2414 GENERATE UNIT STATUS REPORTS

- A242 ASSIGN RESOURCES TO RQMTS
 - A2421 CHECK QUALIFICATIONS
 - A2422 CHECK AVAILABILITY
 - A2423 CHECK DEPLOYMENT HISTORY
 - A2424 COMPARE PERSONNEL RANKS
 - A2425 CHECK PREPARATION STATUS
- A243 VERIFY/ ADJUST SELECTION
- A244 IDENTIFY INCREMENTS REQUIRING IN-CHECK
 - A2441 CHECK FOR HAZMAT & SPECIAL HANDLING
 - A2442 CHECK FOR UNIT CARGO MIX
 - A2443 CHECK UNIT PREPARATION QUALIFICATIONS
 - A2444 IDENTIFY FOR INCHECK
- A245 IDENTIFY PERSONNEL REQUIRING PDF PROCESSING
 - A2451 CHECK TAG STATUS
 - A2452 CHECK SHOT STATUS
 - A2453 CHECK FINANCE STATUS
 - A2454 CHECK LEGAL STATUS
 - A2455 CHECK MINISTRY SUPPORT NEED
- A25 DEVELOP DEPLOYMENT SCHEDULE
 - A251 DEVELOP GENERIC CHALK GENERATION TIMES
 - A2511 INCLUDE PREP TIME
 - A2512 COMPUTE PERSONNEL PROCESSING TIME
 - A2513 COMPUTE CARGO PROCESSING TIME
 - A2514 INCLUDE MOVEMENT TIME
 - A2515 INCLUDE LOADING TIME
 - A252 COORDINATE PRODUCTION AMONG CHALKS
 - A253 TRANSLATE TO ACTUAL TIMES
 - A254 MAINTAIN DEPLOYMENT STATUS
 - A255 VERIFY THE DSOE
- A3 SET UP DEPLOYMENT MACHINE
 - A31 SELECT AUGMENTEE
 - A311 DETERMINE SUPPORT RQMTS
 - A312 ASSIGN AUGMENTEE NAMES
 - A313 VERIFY
 - A314 NOTIFY AUGMENTEE
 - A32 PREPARE AUGMENTEE
 - A33 SET UP THE WORK CENTER
 - A34 ACCESS THE WORK CENTER MATERIALS
 - A35 CAPTURE STATUS
- A4 ARRANGE FOR TRANSPORTATION
 - A41 ESTIMATE TRANSPORT LOAD
 - A42 MAP REQUIREMENTS TO AVAILABILITY
 - A43 ARRANGE CONTRACT SUPPORT
 - A44 VERIFY LOCAL TRANSPORT SCHEDULE
 - A45 COORDINATE TRANSPORT RQMT
 - A46 VERIFY LOCAL TRANSPORT ASSIGNMENT
- A5 DEPLOY RESOURCES
 - A51 PREPARE RESOURCES
 - A511 NOTIFY RESOURCES
 - A512 UPDATE RESOURCE STATUS
 - A513 BUILD INCREMENTS
 - A5131 POSITION ELEMENTS
 - A51311 DETERMINE PROBLEM FOR REJECTION
 - A51312 REPLACE/ ADJUST ITEMS
 - A51313 PLACE CONSTRAINTS
 - A5132 DETERMINE INCREMENT PROPERTIES

- A51321 DETERMINE ITEM SIZE
- A51322 PLACE ON SCALE
- A51323 COMPUTE CARRYING POSITION
- A51324 COMPARE ACTUALS TO LIMITING FACTORS
- A5133 DOCUMENT INCREMENT CONTENT
 - A51331 DOCUMENT INCREMENT LIST
 - A51332 SELECT HAZMAT ITEMS
 - A51333 PREPARE SHIPPERS AUTHORIZATION
 - A51334 IDENTIFY SHIPPERS DOC AUTHORIZATION
 - A51335 SELECT ONE PERSON FOR SIGNATURE
 - A51336 ACCESS SHIPPERS DOC AUTHORIZATION
- A5134 PRODUCE & PLACE PLACARD
- A5135 INSPECT INCREMENT
- A5136 DESIGNATE TRANSPORT PATH
- A514 MOVE TO UNIT HOLDING AREA
- A515 DETERMINE INCREMENT MOVEMENT NEEDS
- A516 NOTIFY CONTACTS
- A52 TRANSPORT
- A53 PROCESS THROUGH PDF
 - A531 VERIFY INDIVIDUAL
 - A532 COLLECT MOBILITY BAGS
 - A533 REPLACE/UPDATE ID CARD
 - A534 UPDATE MEDICAL
 - A535 PROVIDE CONSULTATION
 - A5351 UPDATE EMERGENCY DATA
 - A5352 PROVIDE LEGAL ASSISTANCE
 - A5353 PROVIDE RELIGIOUS SUPPORT
 - A5354 PROVIDE FINANCIAL SUPPORT
 - A536 HOLD FOR TRANSPORT
- A54 PROCESS THROUGH CDF
 - A541 INSPECT INCREMENT
 - A5411 VERIFY CHALK ASSIGNMENT
 - A5412 VERIFY HAZMAT ITEMS
 - A5413 VISUALLY INSPECT
 - A5414 VERIFY HAZMAT CERTIFICATION DOCS
 - A5415 REPORT CDF RESULTS
 - A542 DETERMINE INCREMENT PARAMETERS
 - A543 COMPARE ACTUALS TO CONVEYANCE LIMITATIONS
 - A544 ADJUST INCREMENT INFO
 - A545 RELAY INCREMENT STATUS
- A55 PREPARE FOR TRANSPORT
 - A551 REVIEW LOAD PLAN
 - A552 POSITION INCREMENTS & PERSONNEL
 - A553 RECORD INCREMENTS & PERSONNEL
 - A554 ADJUST & PRESENT FINAL DOCUMENTS
- A-11 EVALUATE WORLDWIDE SITUATION
- A-12 DEVELOP OPERATION PLAN (OPLAN)
- A-13 PERFORM CRISIS ACTION PLANNING
- A-14 BEDDOWN RESOURCES AT FINAL DESTINATION

**LOG-AID TO-BE ACTIVITY MODEL
DIAGRAMS WITH TEXT**

A-1 SCOPING THE CONTINGENCY DEPLOYMENT PROCESS

Ensuring a peaceful world environment requires an effective and efficient force deployment capability to locations anywhere in the world to perform war-fighting, peacekeeping, and humanitarian support operations. Deployment begins with the identification of a potential scenario at anticipated crisis points within the world and the development of operational and deployment plans to address the scenario. As necessary, the military units deploy to the designated sites.

Military leaders from each of the world theaters (PACOM [Pacific], EUCOM [Europe], SOUTHCOM [Southern], USACOM [Atlantic], and CENTCOM [Southwest Asia]) analyze the world environment and identify specific locations having a high probability of non-peaceful activities, and potential scenarios for each location. Using this information, Theater Commanders establish the mission requirements to address the scenarios. These mission requirements then assigned to the appropriate MAJCOMs drive long-range or deliberate deployment planning.

The deliberate planning, documented in an Operations Plan (OPLAN), identifies the scenarios and operational capabilities needed to address situations at designated locations throughout the world. While the deliberate planning anticipates world hot spots, the Perform Crisis Action Planning activity focuses by the identification of specific locations to which a deployment addresses a given operational scenario. However, because the specific hot spot could be either a real situation or an anticipated hot spot defined by deliberate planning or a potential hot spot selected for training purposes, the deployment functionality involved remains basically the same.

Wings and units are assigned UTC deployment responsibilities, thus designating the capabilities of their mission. A LIMFACS/Shortfalls report documents any mission requirements not be satisfied by existing UTCs or by an assigned unit. This report initiates the modification of an existing UTC, an increased number of units assigned with the specific UTC, or the development and unit preparation of new UTCs.

In general, this activity refines, as appropriate, the information provided in deliberate tasking products, the order of arrival for each UTC capability at the reception site, and assigns complete or fragmented UTC requirements to available units. These refined requirements established by the MAJCOM assign deployment responsibilities to the units through the TPFDD. A unit self-evaluation documents the readiness of the units to

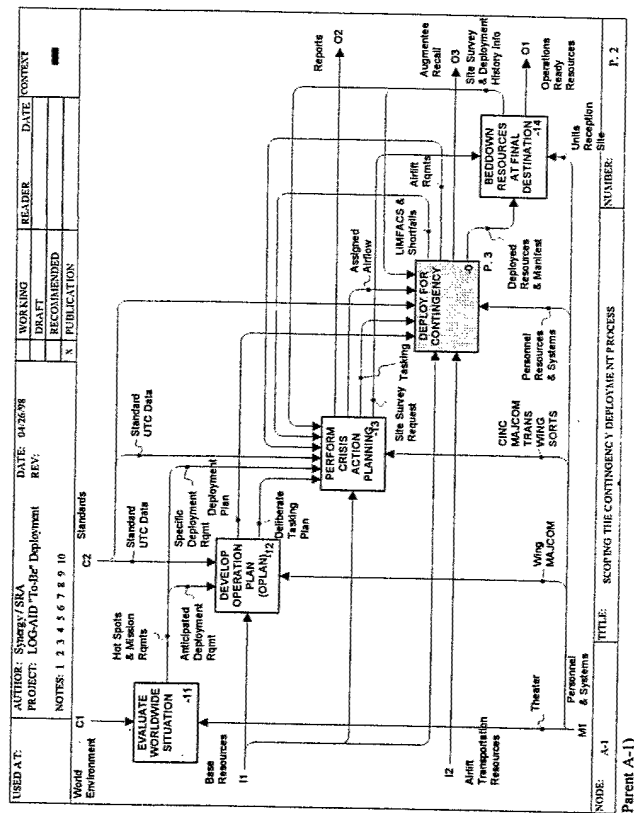
satisfy a UTC and is delivered to the MAJCOM through SORTS (Status of Resources and Training System). Any operational factors or resource requirements not satisfied with available resources within a unit are documented as limiting factors or shortfalls (LIMFACS/Shortfalls). These LIMFACS/Shortfalls provide the information necessary to procure the necessary resources, to adjust an existing UTC or to develop a new UTC. A partial TPFDD or contingency plan to the Wing documents the resulting information.

USED AT:	AUTHOR: Synergy / SRA PROJECT: LOG-AID "To-Be" Deployment	DATE: 04/26/98 REV:	WORKING DRAFT	READER	DATE	CONTEXT:
NOTES: 1 2 3 4 5 6 7 8 9 10	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>EVALUATE WORLDWIDE SITUATION -11</p> <p>Inputs: World Environment (C1), Base Resources (I1), Hot Spots & Mission Rqmts, Anticipated Deployment Rqmt, Standard UTC Data, Standard UTC Data.</p> <p>Output: Specific Deployment Rqmt.</p> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>DEVELOP OPERATION PLAN (OPLAN) -12</p> <p>Inputs: Specific Deployment Rqmt, Deliberate Tasking Plan.</p> <p>Output: Assigned Airflow.</p> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>PERFORM CRISIS ACTION PLANNING -13</p> <p>Inputs: Assigned Airflow, Site Survey Request, Deliberate Tasking Plan.</p> <p>Output: Reports (O2).</p> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>DEPLOY FOR CONTINGENCY -0</p> <p>Inputs: Assigned Airflow, Site Survey Request, Deliberate Tasking Plan, Assigned Airflow, LIMFACS & Shortfalls, Airlift Rqmts.</p> <p>Output: Augmentee Recall (O3).</p> </div> <div style="border: 1px solid black; padding: 5px;"> <p>BEDDOWN RESOURCES AT FINAL DESTINATION -14</p> <p>Inputs: Augmentee Recall (O3), Site Survey & Deployment History Info (O1), Operations Ready Resources.</p> <p>Output: Units Reception Site.</p> </div>					
World Environment	<p>C2 Standards</p> <p>Hot Spots & Mission Rqmts</p> <p>Anticipated Deployment Rqmt</p> <p>Standard UTC Data</p> <p>Standard UTC Data</p> <p>Specific Deployment Rqmt</p> <p>Deliberate Tasking Plan</p> <p>Assigned Airflow</p> <p>LIMFACS & Shortfalls</p> <p>Airlift Rqmts</p> <p>Augmentee Recall</p> <p>Site Survey & Deployment History Info</p> <p>Operations Ready Resources</p> <p>Units Reception Site</p>					
Base Resources	<p>I1</p> <p>I2</p> <p>Airlift Transportation Resources</p> <p>Theater</p> <p>Personnel & Systems</p> <p>Wing MAJCOM</p> <p>CINC MAJCOM TRANS WING SORTS</p> <p>Personnel Resources & Systems</p> <p>Deployed Resources & Manifest</p>					
World Environment	<p>M1</p> <p>M2</p> <p>M3</p> <p>M4</p> <p>M5</p> <p>M6</p> <p>M7</p> <p>M8</p> <p>M9</p> <p>M10</p> <p>M11</p> <p>M12</p> <p>M13</p> <p>M14</p> <p>M15</p> <p>M16</p> <p>M17</p> <p>M18</p> <p>M19</p> <p>M20</p> <p>M21</p> <p>M22</p> <p>M23</p> <p>M24</p> <p>M25</p> <p>M26</p> <p>M27</p> <p>M28</p> <p>M29</p> <p>M30</p> <p>M31</p> <p>M32</p> <p>M33</p> <p>M34</p> <p>M35</p> <p>M36</p> <p>M37</p> <p>M38</p> <p>M39</p> <p>M40</p> <p>M41</p> <p>M42</p> <p>M43</p> <p>M44</p> <p>M45</p> <p>M46</p> <p>M47</p> <p>M48</p> <p>M49</p> <p>M50</p> <p>M51</p> <p>M52</p> <p>M53</p> <p>M54</p> <p>M55</p> <p>M56</p> <p>M57</p> <p>M58</p> <p>M59</p> <p>M60</p> <p>M61</p> <p>M62</p> <p>M63</p> <p>M64</p> <p>M65</p> <p>M66</p> <p>M67</p> <p>M68</p> <p>M69</p> <p>M70</p> <p>M71</p> <p>M72</p> <p>M73</p> <p>M74</p> <p>M75</p> <p>M76</p> <p>M77</p> <p>M78</p> <p>M79</p> <p>M80</p> <p>M81</p> <p>M82</p> <p>M83</p> <p>M84</p> <p>M85</p> <p>M86</p> <p>M87</p> <p>M88</p> <p>M89</p> <p>M90</p> <p>M91</p> <p>M92</p> <p>M93</p> <p>M94</p> <p>M95</p> <p>M96</p> <p>M97</p> <p>M98</p> <p>M99</p> <p>M100</p>					
World Environment	<p>World Environment</p> <p>Base Resources</p> <p>Personnel & Systems</p> <p>Wing MAJCOM</p> <p>CINC MAJCOM TRANS WING SORTS</p> <p>Personnel Resources & Systems</p> <p>Deployed Resources & Manifest</p> <p>BEDDOWN RESOURCES AT FINAL DESTINATION</p> <p>Units Reception Site</p>					
World Environment	<p>World Environment</p> <p>Base Resources</p> <p>Personnel & Systems</p> <p>Wing MAJCOM</p> <p>CINC MAJCOM TRANS WING SORTS</p> <p>Personnel Resources & Systems</p> <p>Deployed Resources & Manifest</p> <p>BEDDOWN RESOURCES AT FINAL DESTINATION</p> <p>Units Reception Site</p>					
World Environment	<p>World Environment</p> <p>Base Resources</p> <p>Personnel & Systems</p> <p>Wing MAJCOM</p> <p>CINC MAJCOM TRANS WING SORTS</p> <p>Personnel Resources & Systems</p> <p>Deployed Resources & Manifest</p> <p>BEDDOWN RESOURCES AT FINAL DESTINATION</p> <p>Units Reception Site</p>					
World Environment	<p>World Environment</p> <p>Base Resources</p> <p>Personnel & Systems</p> <p>Wing MAJCOM</p> <p>CINC MAJCOM TRANS WING SORTS</p> <p>Personnel Resources & Systems</p> <p>Deployed Resources & Manifest</p> <p>BEDDOWN RESOURCES AT FINAL DESTINATION</p> <p>Units Reception Site</p>					
World Environment	<p>World Environment</p> <p>Base Resources</p> <p>Personnel & Systems</p> <p>Wing MAJCOM</p> <p>CINC MAJCOM TRANS WING SORTS</p> <p>Personnel Resources & Systems</p> <p>Deployed Resources & Manifest</p> <p>BEDDOWN RESOURCES AT FINAL DESTINATION</p> <p>Units Reception Site</p>					
World Environment	<p>World Environment</p> <p>Base Resources</p> <p>Personnel & Systems</p> <p>Wing MAJCOM</p> <p>CINC MAJCOM TRANS WING SORTS</p> <p>Personnel Resources & Systems</p> <p>Deployed Resources & Manifest</p> <p>BEDDOWN RESOURCES AT FINAL DESTINATION</p> <p>Units Reception Site</p>					
World Environment	<p>World Environment</p> <p>Base Resources</p> <p>Personnel & Systems</p> <p>Wing MAJCOM</p> <p>CINC MAJCOM TRANS WING SORTS</p> <p>Personnel Resources & Systems</p> <p>Deployed Resources & Manifest</p> <p>BEDDOWN RESOURCES AT FINAL DESTINATION</p> <p>Units Reception Site</p>					
World Environment	<p>World Environment</p> <p>Base Resources</p> <p>Personnel & Systems</p> <p>Wing MAJCOM</p> <p>CINC MAJCOM TRANS WING SORTS</p> <p>Personnel Resources & Systems</p> <p>Deployed Resources & Manifest</p> <p>BEDDOWN RESOURCES AT FINAL DESTINATION</p> <p>Units Reception Site</p>					
World Environment	<p>World Environment</p> <p>Base Resources</p> <p>Personnel & Systems</p> <p>Wing MAJCOM</p> <p>CINC MAJCOM TRANS WING SORTS</p> <p>Personnel Resources & Systems</p> <p>Deployed Resources & Manifest</p> <p>BEDDOWN RESOURCES AT FINAL DESTINATION</p> <p>Units Reception Site</p>					
World Environment	<p>World Environment</p> <p>Base Resources</p> <p>Personnel & Systems</p> <p>Wing MAJCOM</p> <p>CINC MAJCOM TRANS WING SORTS</p> <p>Personnel Resources & Systems</p> <p>Deployed Resources & Manifest</p> <p>BEDDOWN RESOURCES AT FINAL DESTINATION</p> <p>Units Reception Site</p>					
World Environment	<p>World Environment</p> <p>Base Resources</p> <p>Personnel & Systems</p> <p>Wing MAJCOM</p> <p>CINC MAJCOM TRANS WING SORTS</p> <p>Personnel Resources & Systems</p> <p>Deployed Resources & Manifest</p> <p>BEDDOWN RESOURCES AT FINAL DESTINATION</p> <p>Units Reception Site</p>					
World Environment	<p>World Environment</p> <p>Base Resources</p> <p>Personnel & Systems</p> <p>Wing MAJCOM</p> <p>CINC MAJCOM TRANS WING SORTS</p> <p>Personnel Resources & Systems</p> <p>Deployed Resources & Manifest</p> <p>BEDDOWN RESOURCES AT FINAL DESTINATION</p>					

A-0 DEPLOY FOR CONTINGENCY

The tasking to a unit initiates the basis contingency deployment activities. The tasking consists primarily of the Time Phased Force and Deployment Data (TPFDD) and the Letter of Instruction (LOI). These documents specify the deploying UTCs or capabilities and the deploying time frame for those capabilities. If unclear, tasking clarification calls to the MAJCOM fill the information voids. The deployment process at a specific base is controlled by a set of deployment procedures identified within its Base Deployment Plan. Adjustments or tailoring to the UTC resources account for a number of deployment conditions such as weather and mission duration, and site survey information such as personnel housing capabilities. If a unit realizes its inability to satisfy the UTC deployment requirement using its own or its base's resources, a LIMFAC/Shortfall notification provided to the MAJCOM allows them to reassign the deployment requirement.

With the deployment requirements specified, airlift requirements sent to TRANSCOM helps them assign their airlift resources and establish the airlift schedule. The specified airlift requirements also define the requirements for intra-base transportation necessary to facilitate the deployment. With the deployment infrastructure in place, the units collect, process, and load the necessary resources onto the conveyance. At specified points throughout the process, call-ins to the MAJCOM relay the deployment status to provide process visibility. Following the deployment, reports document the resources deployed and the effectiveness of the deployment effort.



USED AT:	AUTHOR: Synergy / SRA PROJECT: LOG-AID "To-Be" Deployment NOTES: 1 2 3 4 5 6 7 8 9 10	DATE: 04/26/98 REV:	WORKING DRAFT RECOMMENDED PUBLICATION	READER	DATE	CONTEXT: Top
<div style="text-align: center;"> </div> <p>PURPOSE: Describe an improved Wing/Base-Level deployment concept of operation available for implementation by 2010.</p> <p>VIEWPOINT: The individuals directly associated with the application of the wing-level deployment process. Specifically, the Installation Deployment Officer, Unit Deployment Manager, Personnel Deployment Function personnel, Cargo Deployment Function Personnel, and Load Planners.</p>						
NODE: A-0	TITLE: DEPLOY FOR CONTINGENCY		NUMBER: P. 3			

A0 DEPLOY FOR CONTINGENCY IN 2010 (Context)

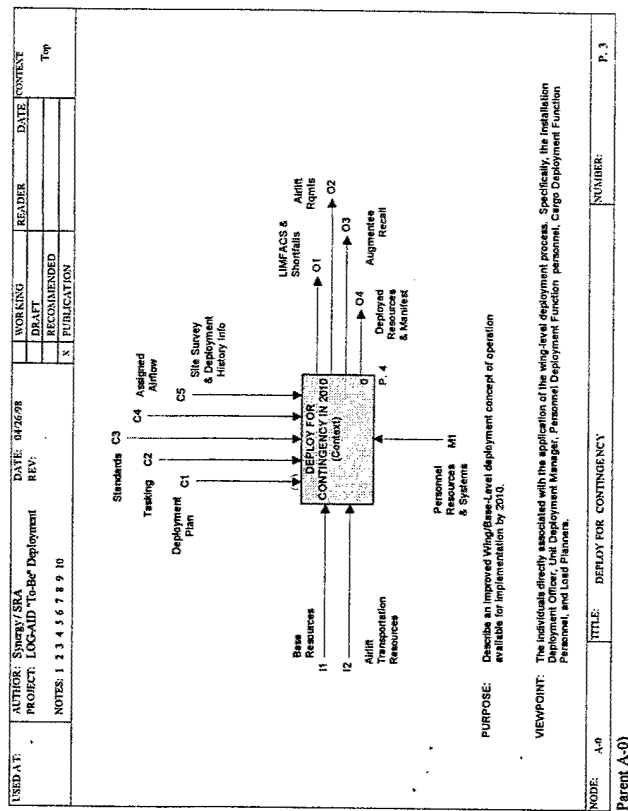
A tasking in the form of a Time Phased Force and Deployment Data (TPFDD) triggers a contingency deployment activity for a unit. The TPFDD contains the Movement Flow that assigns a unit's departure and reception site arrival dates; cargo and personnel deployment preparation data; and the specifications for moving cargo and personnel. The receipt of the tasking triggers the base commander to note the units assigned for deployment, to identify the supporting units impacted by the deployment, and to convene a battle staff consisting of the lead individual from each appropriate organization. The battle staff analyzes the deployment tasking and adjusts the current operational characteristics of the base to support the deployment operational requirements. These battle staff special instructions are documented as the Course of Action (COA).

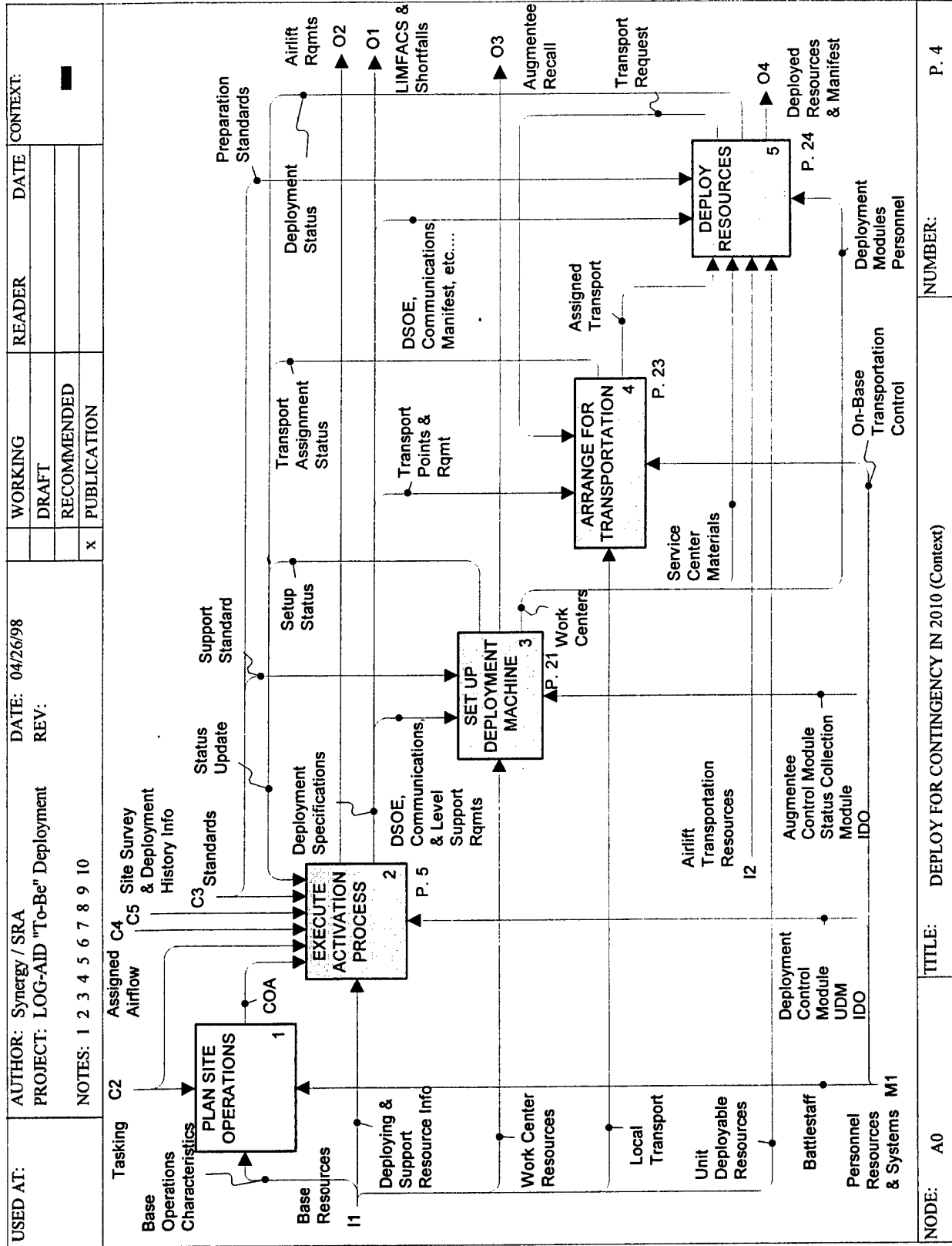
Tailoring of the UTC equipment and personnel requirements ensures they effectively address the mission requirements. The tailored UTC must support the environmental conditions at the reception site and the needs of the mission, and it must coordinate with the reception site resources. A Deployment Schedule of Events (DSOE) guides the total base deployment effort. The UTC and DSOE requirements drive the allocation of necessary base resources and facilities and the assignment of specific personnel SSNs and equipment NSNs.

The layout and implementation of the deployment work center begin with the allocation of base facilities allocated, and the sequencing of processing activities. Through the Resource Augmentation Duty (READY) program, selected augmentees are selected and notified to set up the work centers in accordance with the DSOE. Augmentees normally perform operational duties for the base, but they are trained to perform deployment duties when necessary.

Also, augmentees selected to operate the work centers arrive at the work center, check in, check their training currency, and receive their assignee responsibilities. On-base transportation arrangements are then overlaid onto the deployment schedule and requirements to support the deployment processing.

With all of the supporting structure established, the assigned personnel and equipment resources receive notification; arrive at their designated location, and process through the deployment work centers in accordance with the DSOE. As the deployment progresses, collected status information provides a correlation between the planned and actual processing progress.

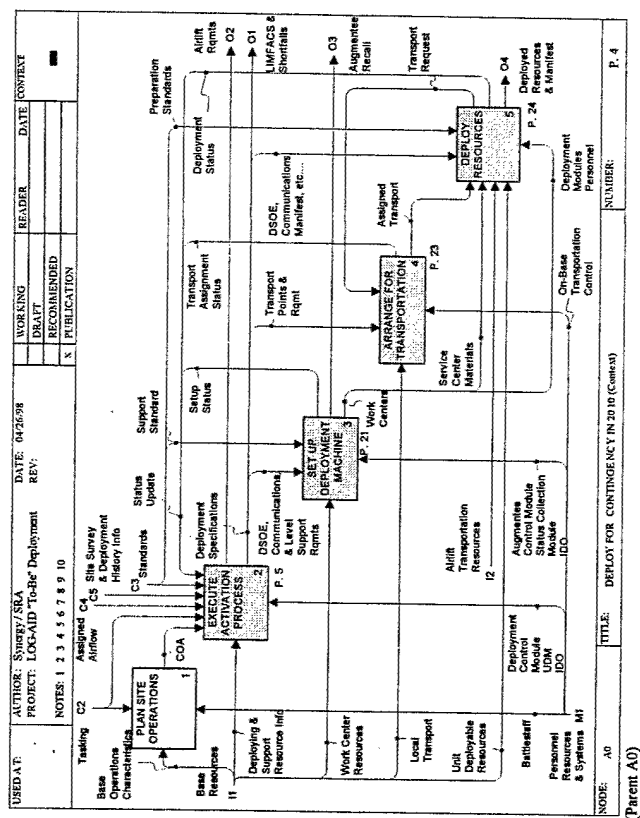


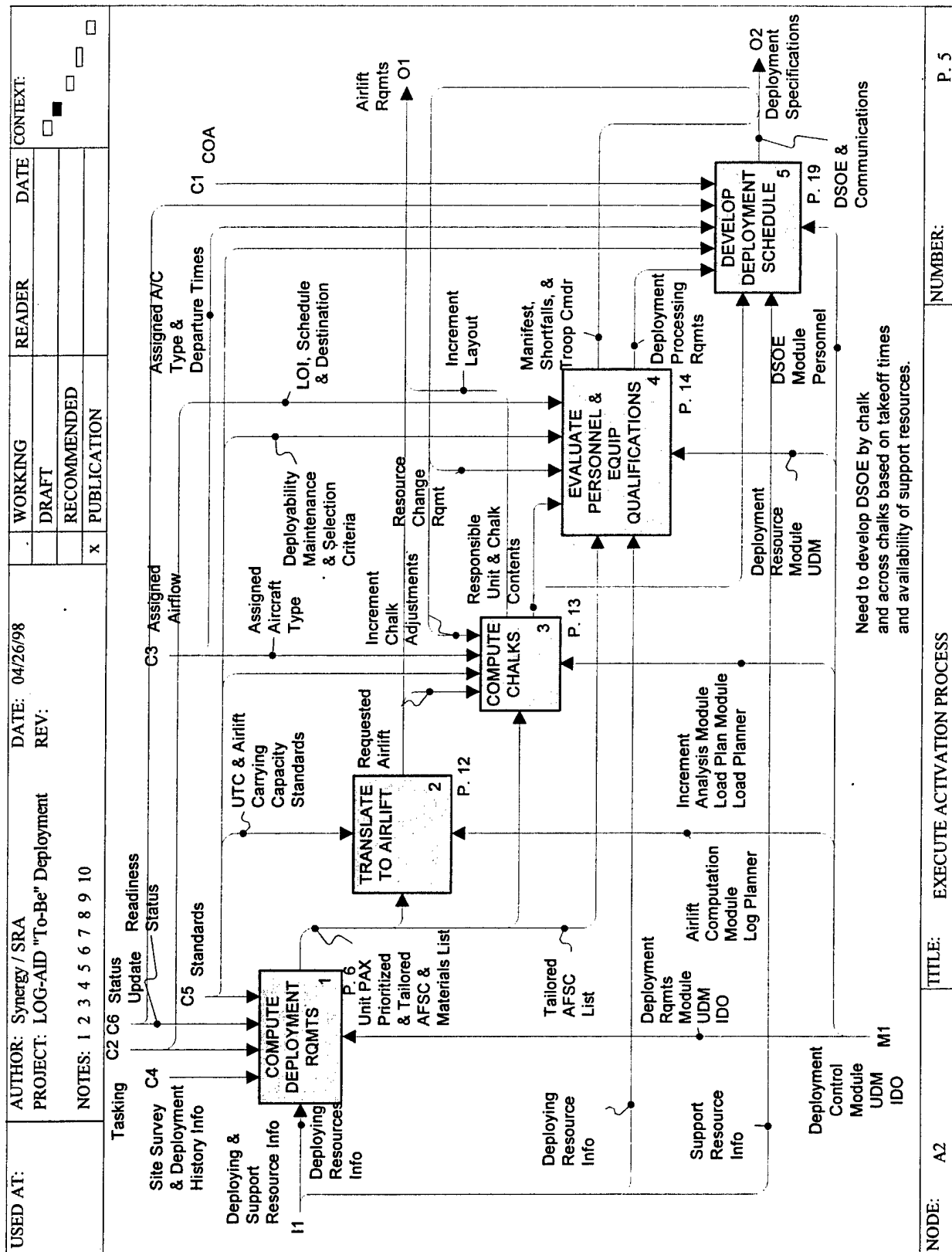


A2 EXECUTE ACTIVATION PROCESS

The execute activation process describes the part of the deployment process that begins with requirements computation to satisfy the tasking until the completion of the DSOE. Knowing the standards specified for a UTC, the resources available at the reception site, and the requirement insights gained from previous deployments, computing the deployment requirements begins based on the deployment tasking. Using standard guidelines for the loading capacity of transporting aircraft, computed airlift computations define the airlift requirements for the deployment and are transmitted to TRANSCOM to facilitate their assignment of airlift resources.

In parallel with defining the airlift requirements, the allocations of prioritized increments define the chalks for the deployment. Knowing the resource requirements and the responsible unit, specific personnel and equipment assignments fill the requirements based on the deployability, maintenance, and selection criteria. Knowing the processing times for each increment and the assigned chalk departure times, the generation of the DSOE integrates the total deployment process into an optimized and controlled set of events. This minimizes the deployment time for all chalk preparation.



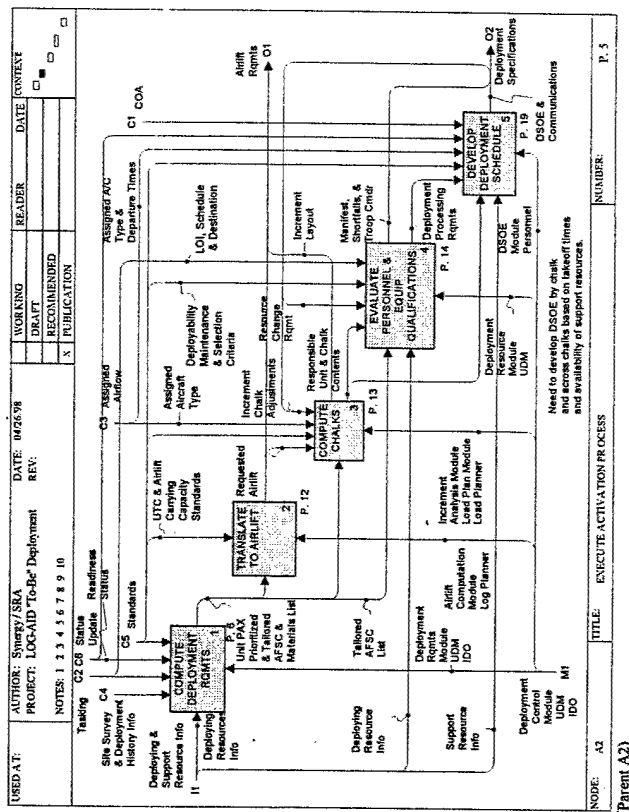


A21 COMPUTE DEPLOYMENT RQMTS

Computing the deployment requirements focuses on deploying the minimal amount of resources needed to accomplish a mission. This computation requires an in-depth look at the resources requested, the resources available at the reception site, and the sharing of resources of co-deployed units. Overlaying unit deployment schedules identify units, which have some amount of common time at the same location. Overlap selection criteria establishes the rules for how long that common time must be to consider the effective sharing of resources.

In parallel with identifying overlapping units, the tasking and LOI requests provide the pointers into the contents of the standard UTC to produce a list of the deployment resources requested. Also, a list of the resources available at the designated reception site is generated by accessing site history information updated with current site survey information. This reception site analysis identifies the shortages and overages at the site with respect to the requested mission requirements.

Adjustments are made to the requested deployment requirements based on the shortages and overages identified at the reception site and the sharing of resources by deployment overlapping units. These adjustments produce a list of deployment requirements for each unit. Taking their assigned deployment requirements, each unit further tailors their requirements based on the operational weather and terrain environment, the lesser of employment duration and the time until sustainment begins, and the history of what resources were used during similar previous deployments.



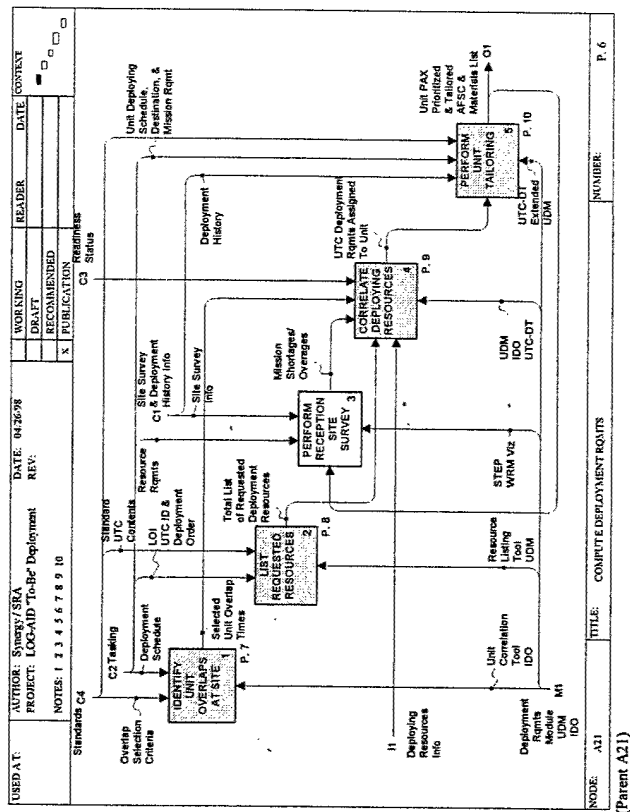
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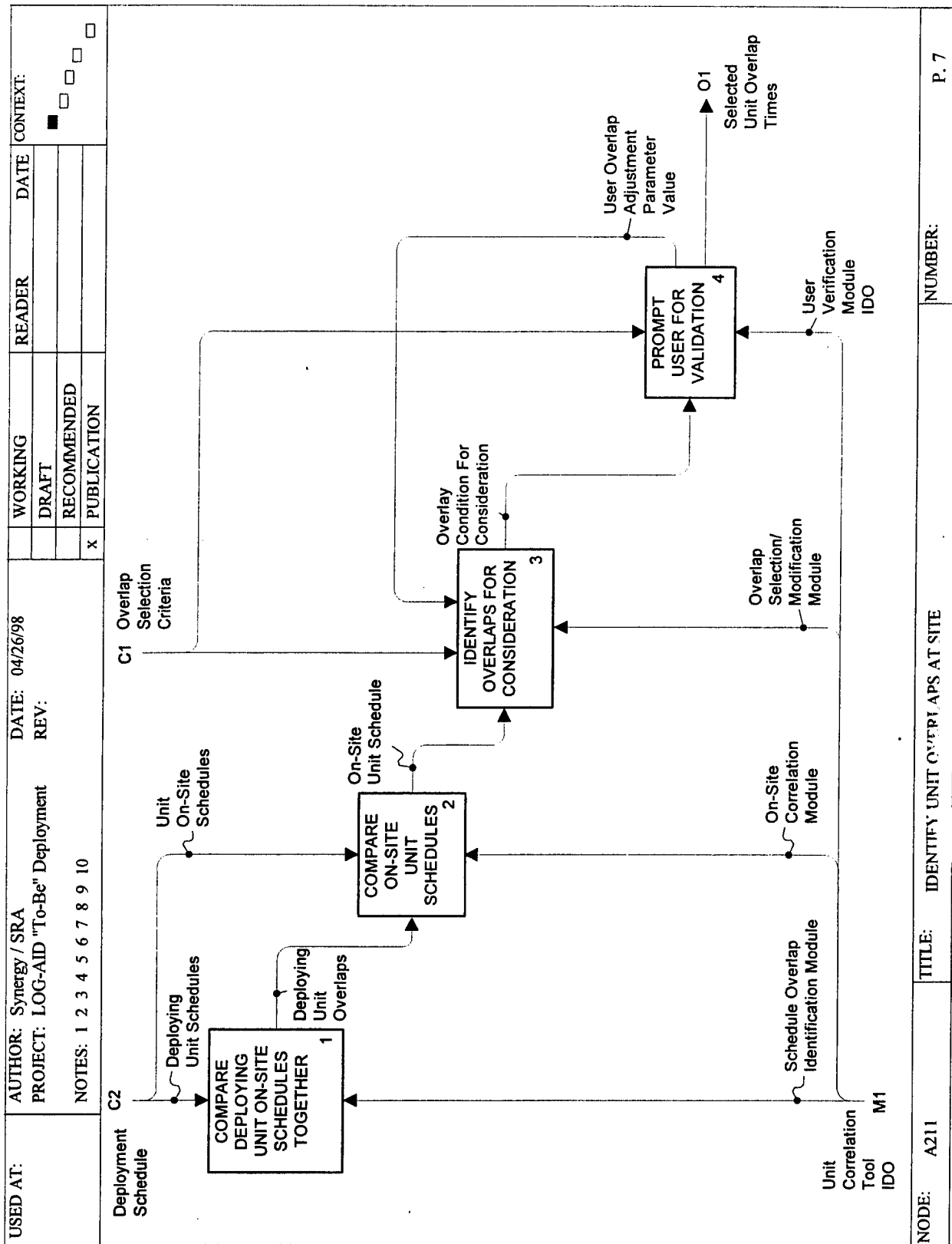
A211 IDENTIFY UNIT OVERLAPS AT SITE

The unit correlation tool supports the users in identifying which units have potential for sharing resources at the reception site, thus supporting the goal of effective tailoring across units. Units considered for sharing resources are those currently deployed at a specific site and those tasked to deploy to the site. The units currently at the sites and their deployment schedule are obtainable through the unit on-site schedules. The unit deploying to the designated reception site and their deploying schedule is available through the TPFDD.

The TPFDD schedule information specifies the arrival and departure times at the reception site, thus identifying their overlaps at the reception site. Overlaying the deploying schedule of units currently at the site provides a complete picture for those units with reception site overlap times, thus with a potential for sharing resources. However, the effectiveness of sharing resources among units depends to a great extent on the duration of that overlap. Using the overlap selection criteria, those unit overlaps that meet the defined criteria are annotated for consideration and presented to the user for verification.

The user evaluates the potential for sharing among these units and adjusts the annotation to reflect the manual adjustments. As the user adjusts the selections, the information system records the selections and makes that information available for the subsequent tailoring efforts.

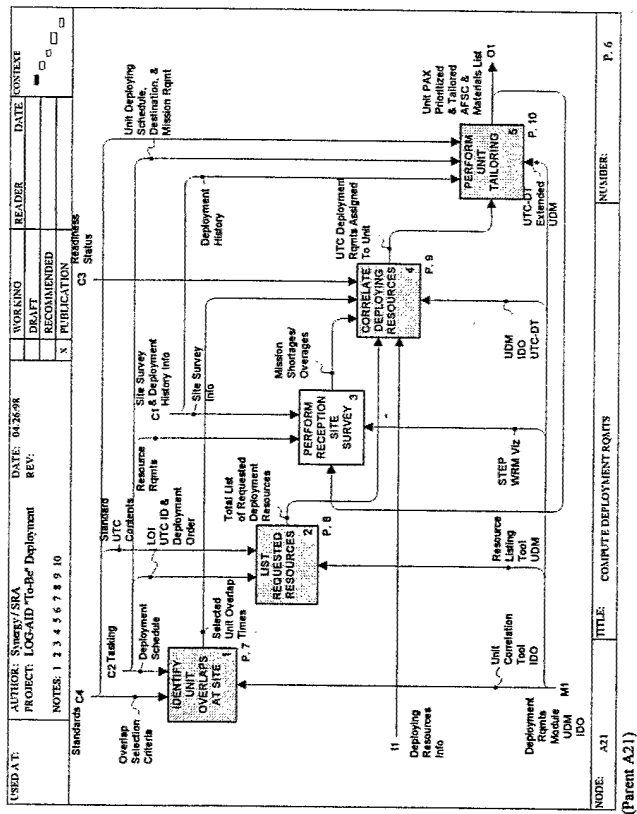


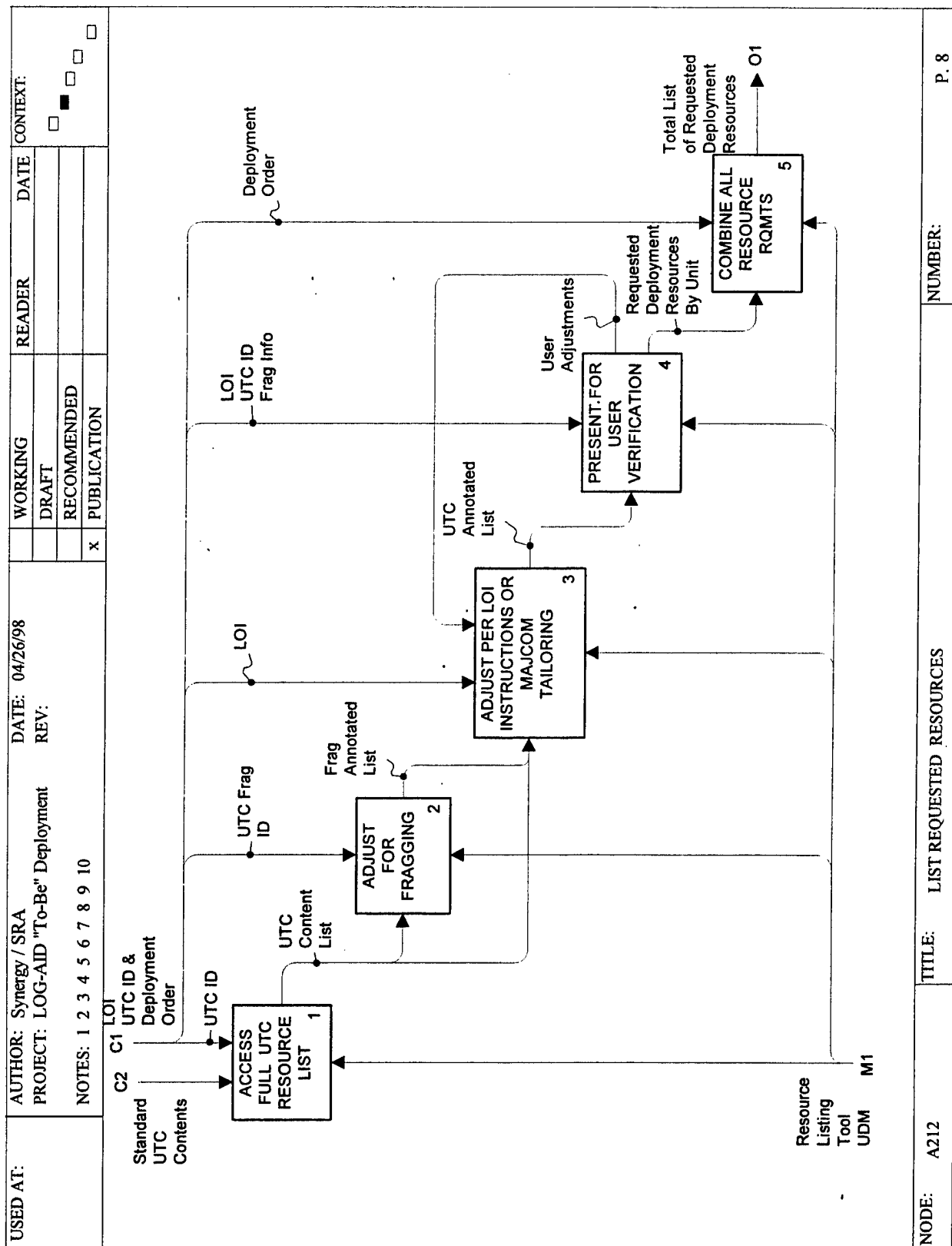


A212 LIST REQUESTED RESOURCES

The initial UTC tailoring for a tasked deployment occurs by identifying resources for a standard UTC and then adjusting those resources as necessary to accommodate fragmentation and Letter of Instruction (LOI) information. For each UTC identifier contained in the tasking TPFDD, access to the standard UTC data produces a list of the resources contained within that UTC. Any UTC frag designations in the TPFDD specify adjustments to this standard resource list. Further adjustments made to the list of UTC resources reflect information contained in the LOI or directed by MAJCOM. An annotated format, such as bold or italic characters, designates tailored out resources.

When completed, the user reviews the annotated list and makes adjustments as necessary to reflect decision logic not incorporated in the decision support system. The user makes the final adjustments to the list. Users then verify the recorded adjustments. Once accepted by the user, the aggregation of prioritized resources provides a total list of resources for deployment from a Wing.





A214 CORRELATE DEPLOYING RESOURCES

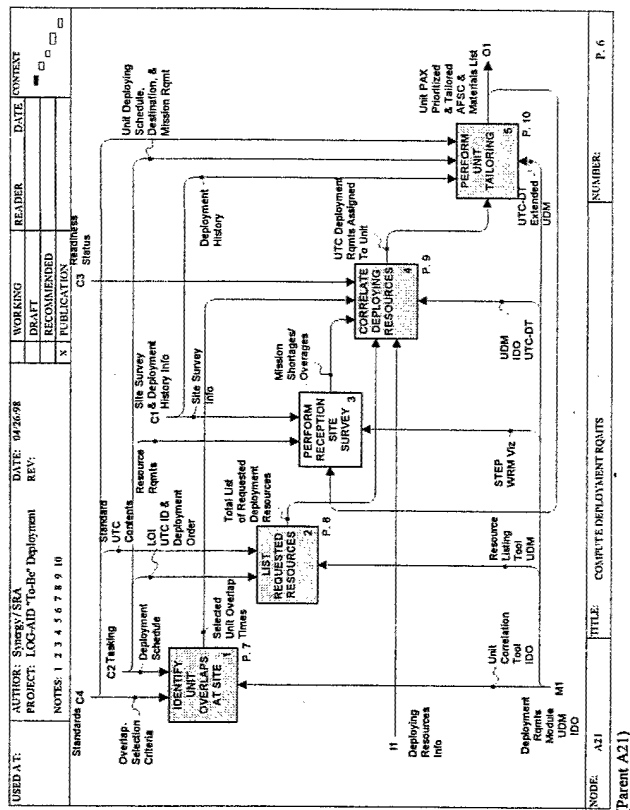
Once selected, deploying units identify the resources assigned through the tasking and aggregate those resources into a list. A series of comparisons then annotates with identified duplicate resources for possible removal of the duplicates, thus reducing the deploying footprint.

The first correlation compares the list of deploying resources with those available at the reception site. These net resource deployment requirements provide the starting point for two parallel comparisons. The Compare Items Across UTCs function compares those UTCs deployed from the same base and with overlapping employment schedules at the reception site. In parallel, the Compare Items Across Bases function compares deployment resource requirements across bases and with overlapping employment schedules.

The annotated net resource list, annotated to indicate the common intra- and inter-base resources, is further annotated with the units selected to deploy the common items. This selection assumes that only one of the common items is necessary for deployment. A set of criteria controls the unit assignment. As information becomes available, these criteria improve as more specific guidance determines the possible removal of resource duplication and more specifics for selecting the assigned unit.

The suggested assignment of common resources presented to the stakeholder for verification also includes the name and phone number for the responsible organization/POC. This information allows the designated units to communicate and quickly resolve the need and assignment of the common resources.

The stakeholder adjustments or acceptance controls the updates to the completed deployment list and allows the units to begin their deployment preparation process.

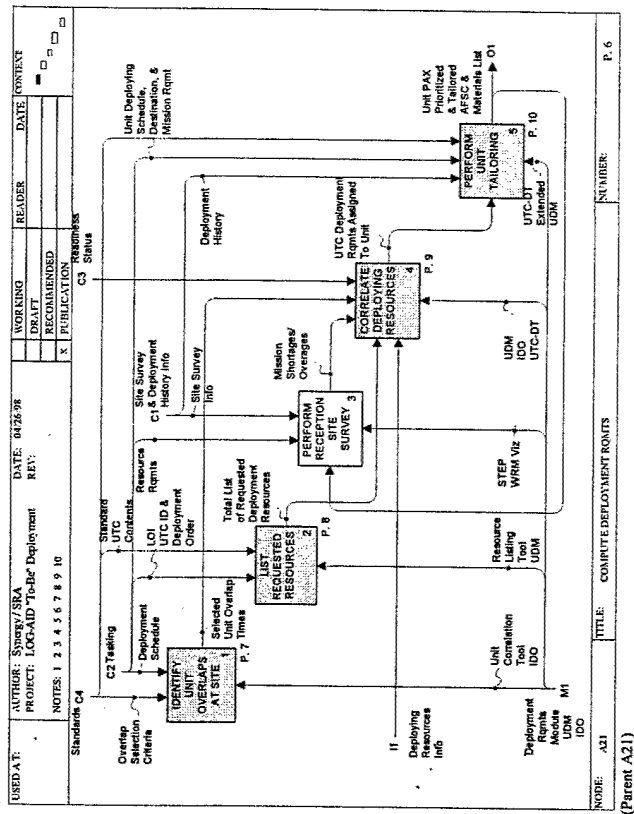


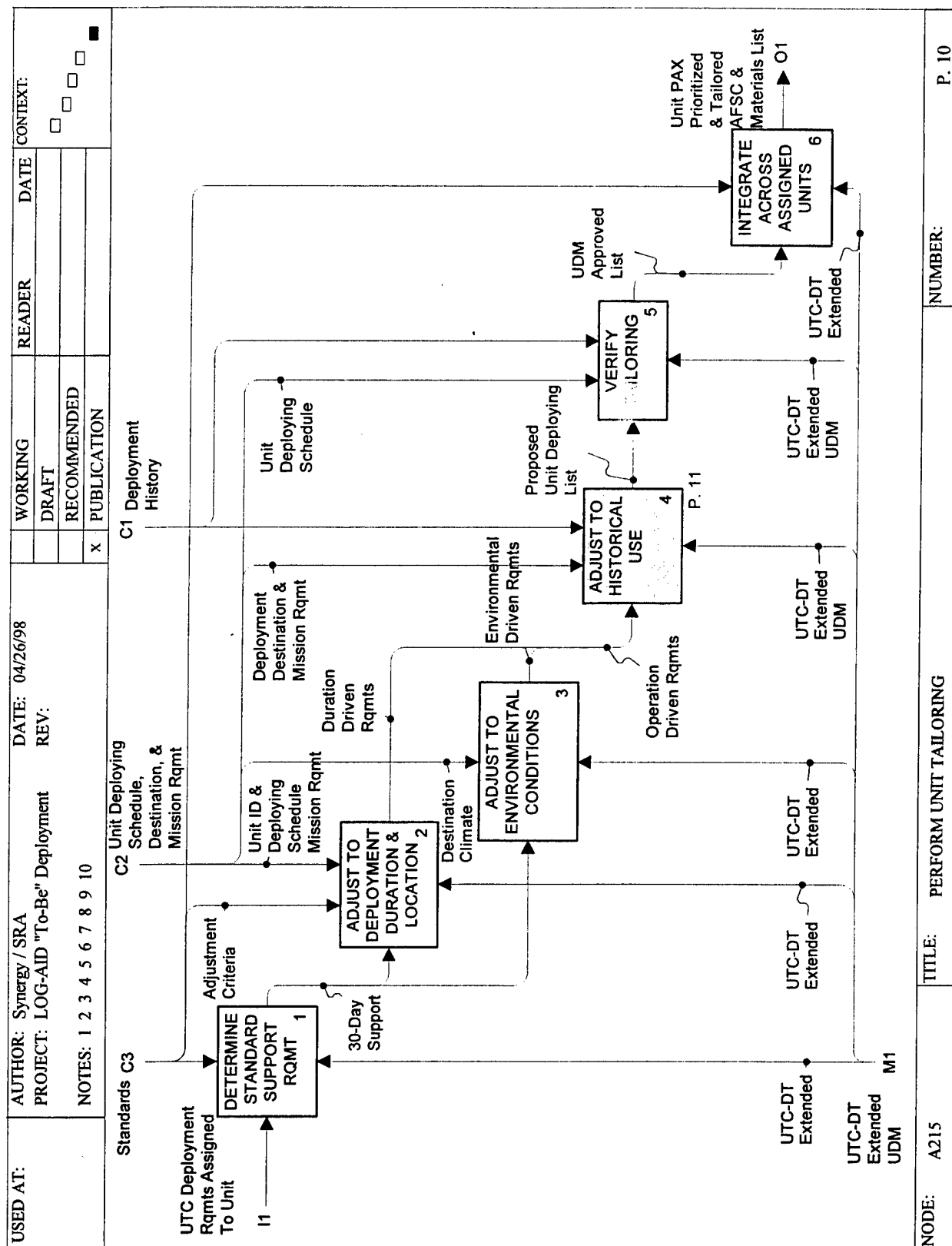
A215 PERFORM UNIT TAILORING

Unit tailoring initiates once the units coordinate on the resources each is to supply. The standard 30-day deployment guidelines specify the standard level for the assigned resources. Adjustments to the standard level reflect the unit's employment duration as defined in the unit deployment schedule and the reception site's operational environment. These adjustments combine to produce the operational driven requirements.

Additional adjustments to the operational driven requirements reflect the historical use of resources during previous similar deployments, resulting in the proposed list of deploying resources for each unit. The proposed list is presented to the UDM for confirmation and adjustments based on their experience and insights not incorporated into the decision support system.

Once approved by the UDM, an integration of the unit resource lists within a base and ordered by deployment priority provides the baseline for developing the chalk definitions.





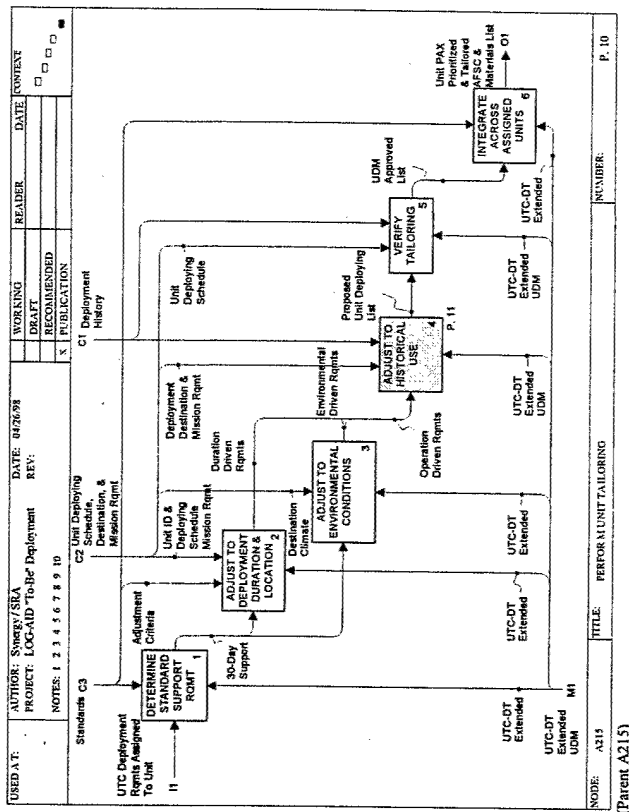
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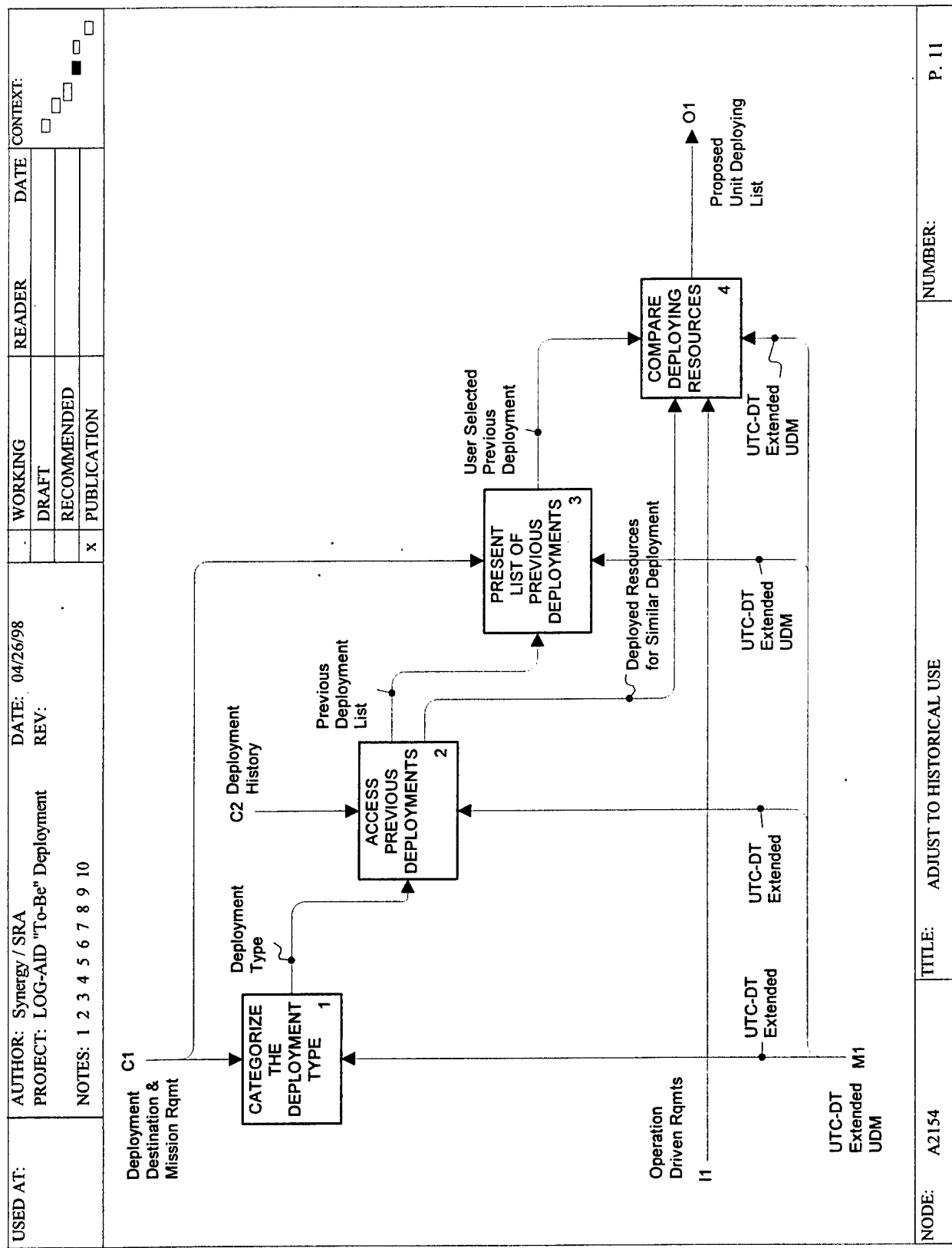
TITLE: PERFORM UNIT TAILORING

NUMBER: P. 10

A2154 ADJUST TO HISTORICAL USE

Historical information from previous deployments provides significant insights for determining the realistic resources needed for the current deployment. Accessing the historical information requires that the current deployment be categorized by type to provide a pointer into the deployment history database. The categorization of the current deployment is derived primarily from the destination or reception site location and the mission objectives. The deployed resources and their level of usage are selected from the deployment history database by using the deployment type as the pointer into the database. A comparison between the historical information and the operation driven deployment lists identifies variations that are annotated on the list of operation driven requirements. The historical data base information includes the resource identifier, its redeployment status, and a designation as to whether or not the resource was used during the employment phase.

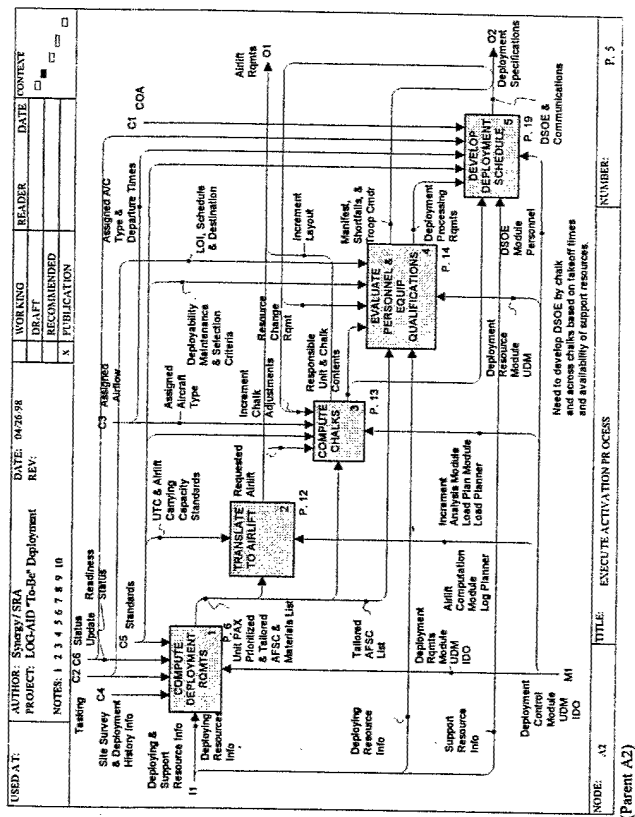


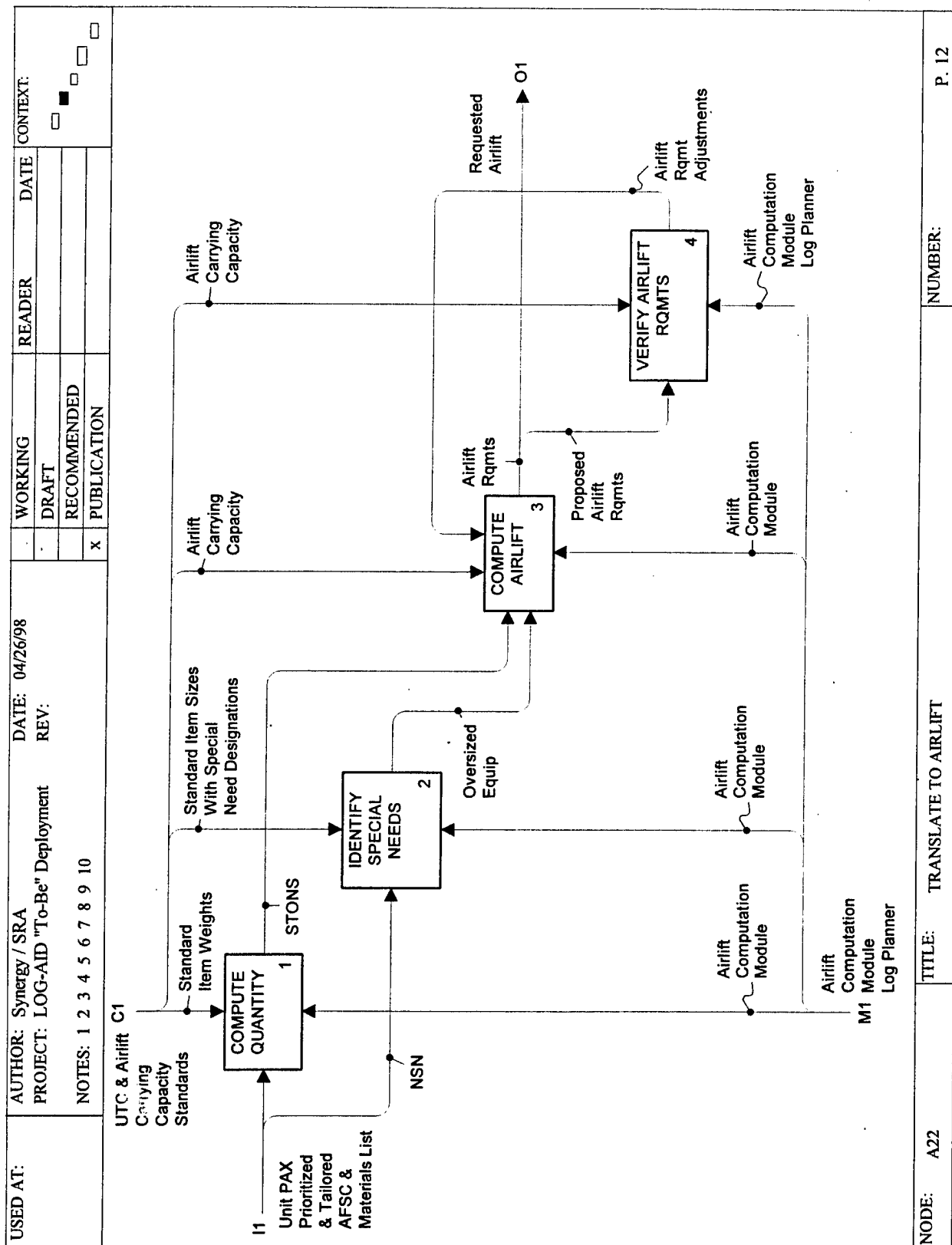


A22 TRANSLATE TO AIRLIFT

Effective assignment of airlift to the various bases and units requires that TRANSCOM know the amount and type of resources being deployed by the units. The amount of short tons (STONS) contained within the deployment and the required airlift is computed based on the prioritized list of deploying resources and the standard weights for each item. An analysis of the resource list with respect to the standard item sizes identifies oversized items.

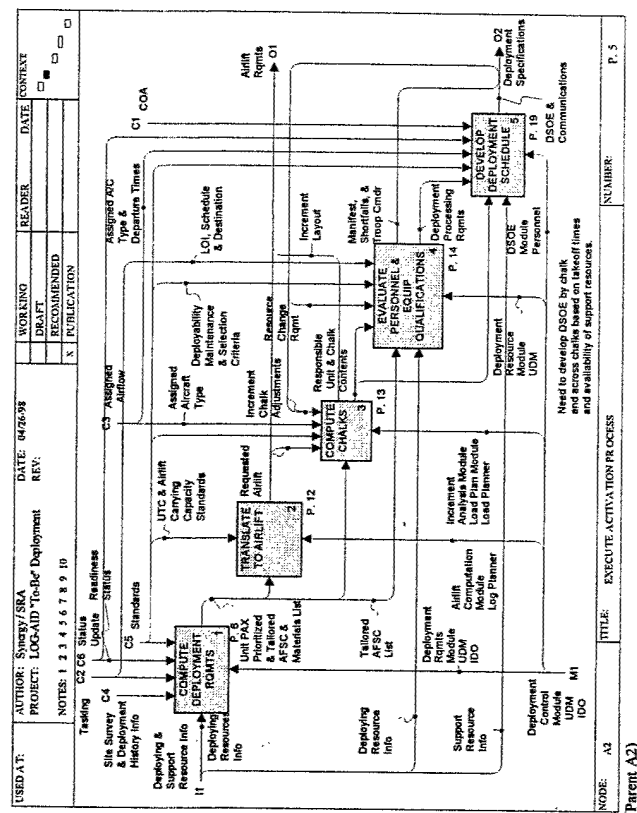
The mapping of STONS and identified oversized equipment information to the standard airlift carrying capacity produces the proposed airlift requirements. The planners review these requirements and identify necessary adjustments to the airlift requirements. Once incorporated, the final airlift requirements are transmitted to TRANSCOM.

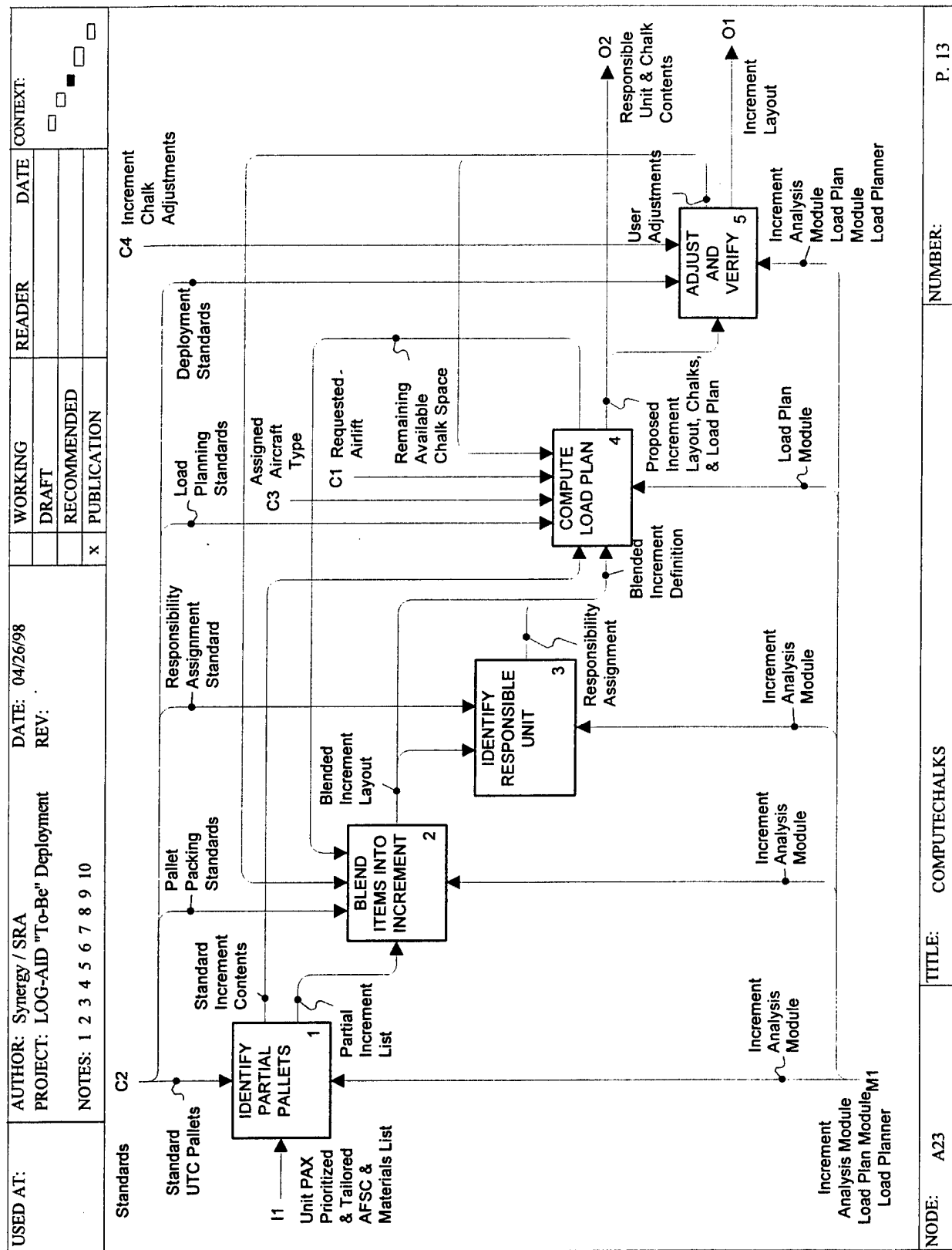




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Parent A2)	Grading Active Job Process	NO. MIN.	P. 5
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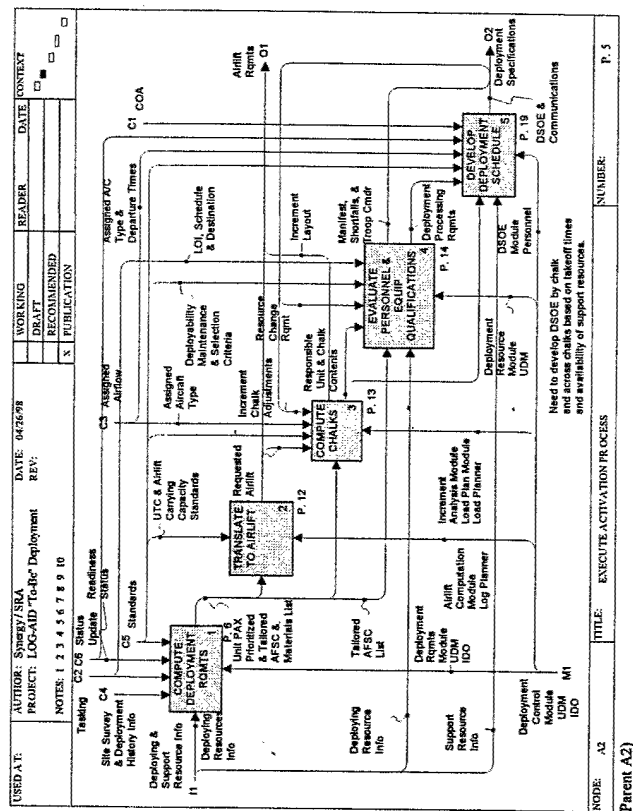


A24 EVALUATE PERSONNEL & EQUIP QUALIFICATIONS

To be effective, deployment must reflect day-to-day operations rather than detached operations triggered by a deployment tasking. To accomplish this objective, the status of maintenance and personnel records for deployable resources are tracked and updated as the changes occur. When the deployment requirements, as designated by chalk, arrive at the unit, a quick analysis of the deployment requirements allows for the mapping of the resources to the requirements, based on a set of deployability criteria. This mapping produces the initial manifest for the chalk, as well as any shortfalls identified by the unit. Presented to the user, adjustments identified by the user are incorporated into the designations and feedback to update the manifest.

Each increment is annotated as to whether or not its processing requirements include going through in-check. The need for increment in-check derives from three considerations: 1) the existence of HazMat within the increment, 2) the proven preparation reliability of the preparing unit, and 3) the existence of cargo from multiple units on an increment.

For each individual identified to deploy, checks made against the preparation status identify which PDF sites must be visited by the individual. The LOI may levy additional deployment requirements on the individuals, and therefore must also be considered when determining which PDF sites must be visited. [This processing should probably also consider that for some of the PDF sites only the information is needed rather than having the individuals there.] The combination of the in-check and PDF process requirements define partial flows of the deploying resources as well as the level of effort needed within each action.



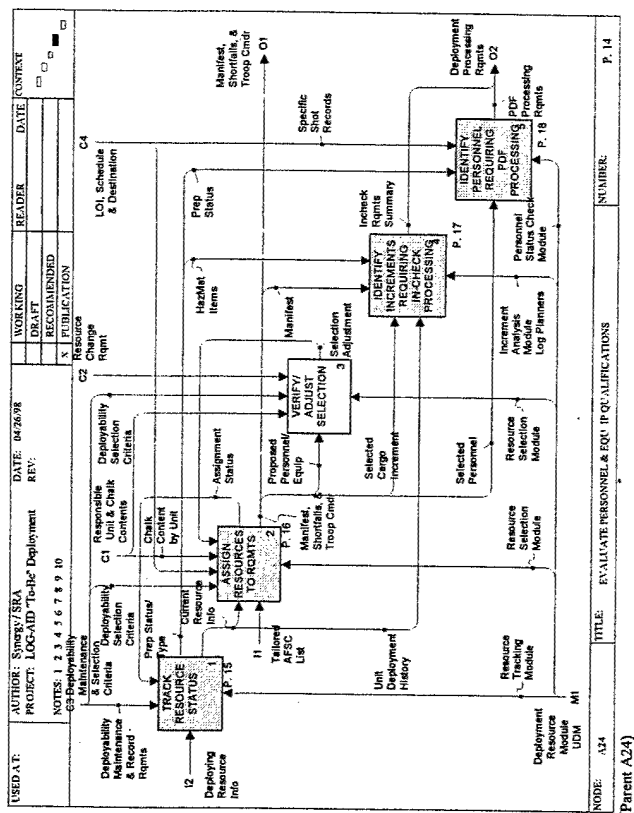
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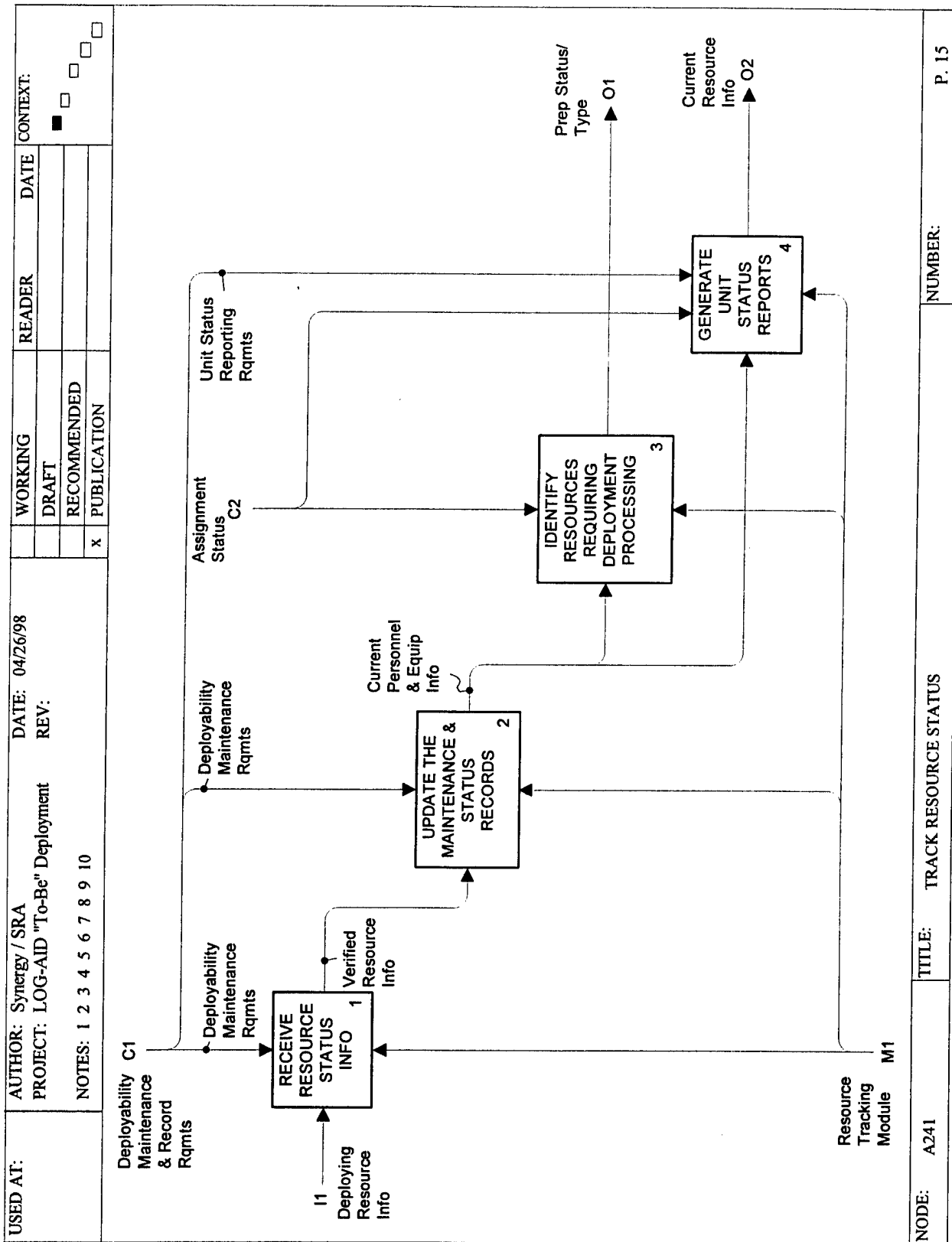
A241 TRACK RESOURCE STATUS

To support the success of the year 2010, the deployment process requires that the day-to-day information processing of unit personnel and cargo integrate with deployment operations. This builds on the premise that personnel and equipment information possess many common data elements.

For both personnel and equipment, there exists a set of required data collected on a regular basis, with the intent being to collect changes when they occur rather than on incremental time basis. In accordance with the collection requirements, near real-time approaches collect and verify the specified data, then use it to update the maintenance and status records. Information extracted from the status database provides the basis for producing status reports as required. The reporting requirements may be defined at regular intervals or as requested by any authorized organization.

As deployment assignments are identified, the resource database provides the information necessary to determine the maintenance required by the resource during deployment processing.



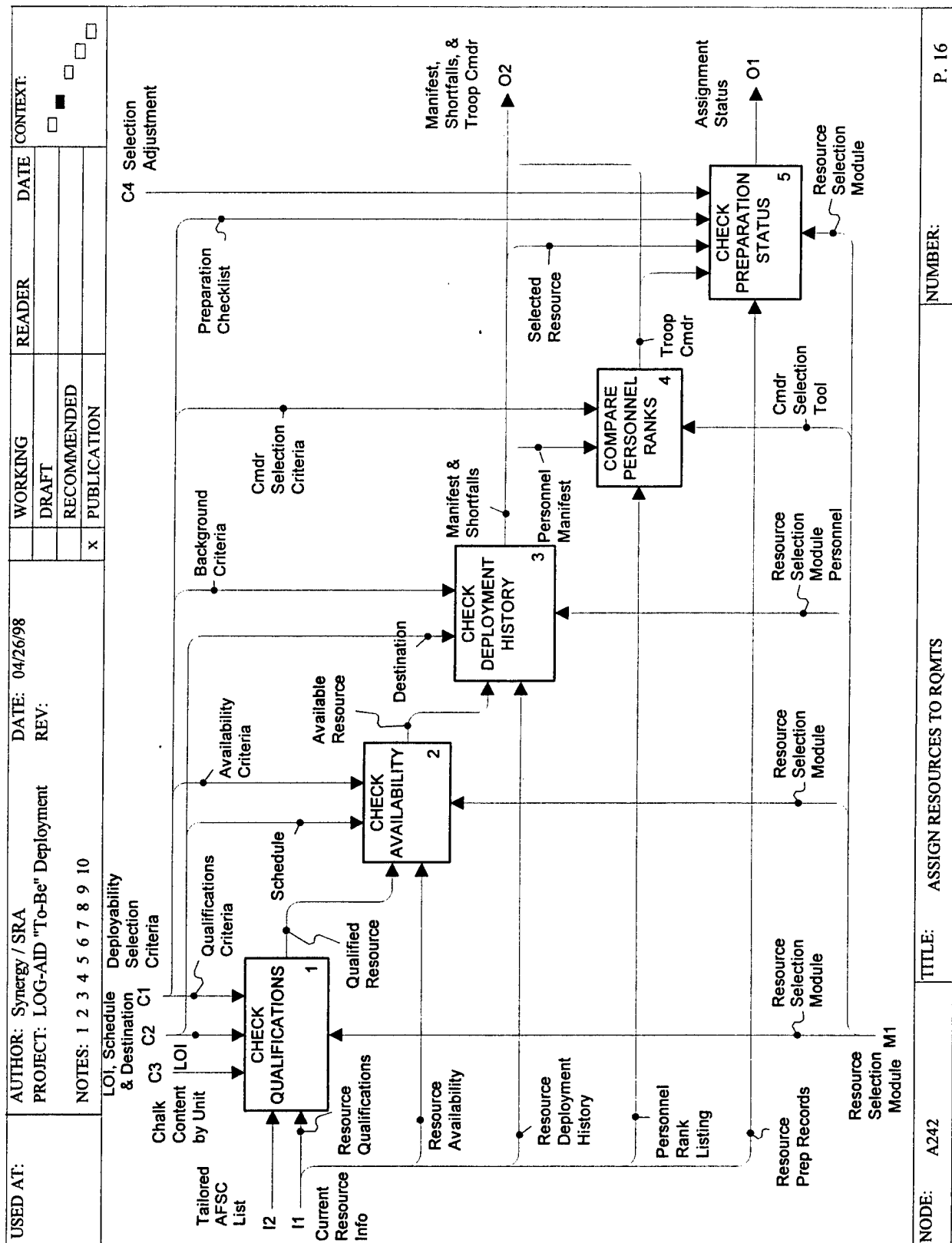


NODE: A241

TITLE: TRACK RESOURCE STATUS

NUMBER:

P. 15

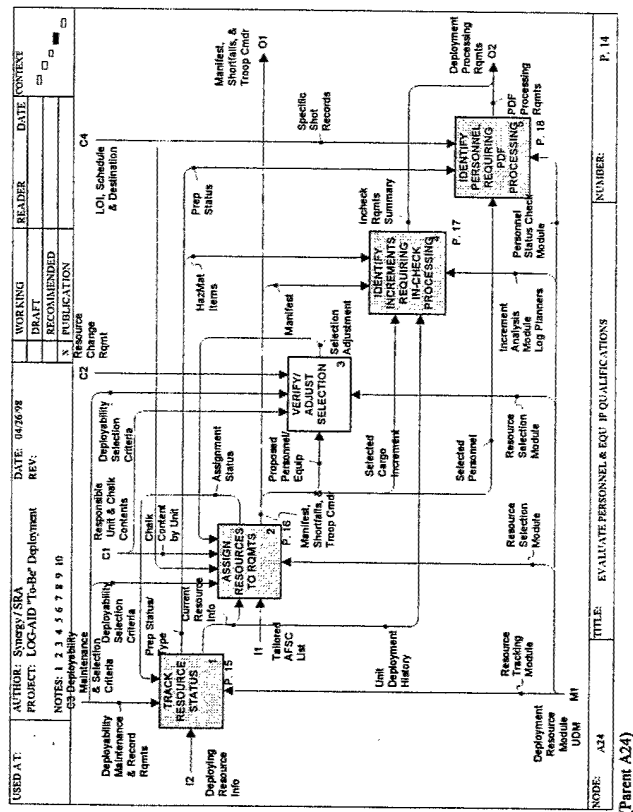


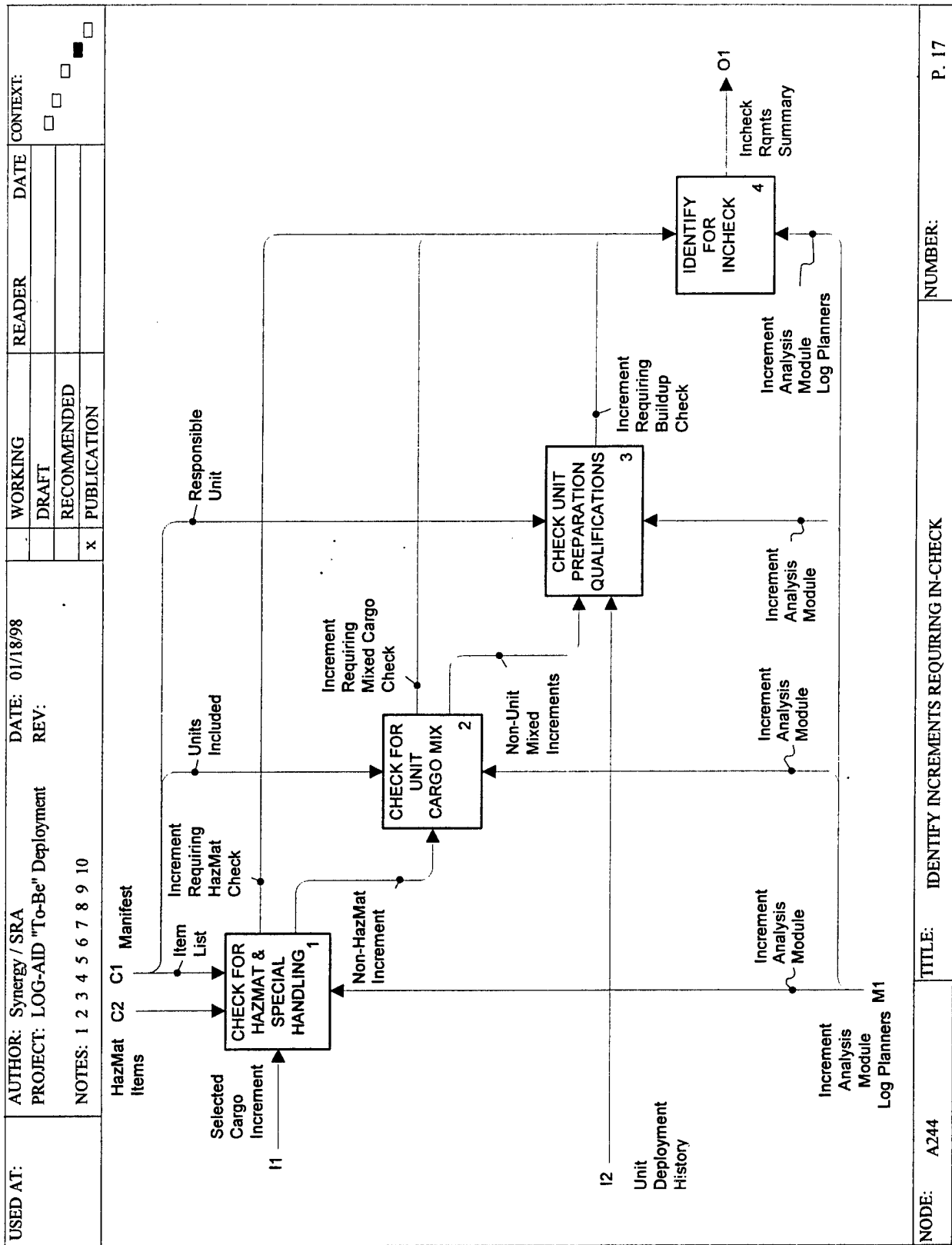
A244 IDENTIFY INCREMENTS REQUIRING IN-CHECK

A starting point for streamlining the deployment process requires that not all of the cargo increments process through the CDF. The criteria for identifying cargo requiring in-check includes the presence of hazardous materials, the existence of mixed cargo, and the preparation qualifications of the responsible unit.

For each cargo increment, the item list is compared to the list of HazMat items to identify the existence hazardous materials. All items containing hazardous materials must go through the in-check. Each increment is then reviewed with respect to the units having cargo on the increment. If two or more units place cargo on the increment, the increment requires in-check. Finally, for non-mixed and non-hazmat increments, the preparation history of the controlling deployment history determines those increments that can pass in-check due to preparing units successful deployment history.

The increments requiring in-check for each chalk are summarized and distributed to the involved units.





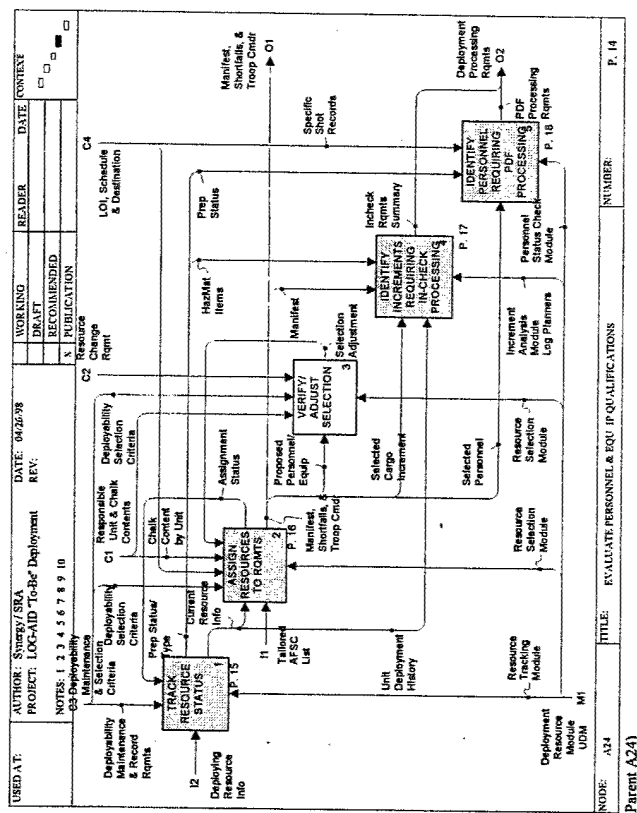
A245 IDENTIFY PERSONNEL REQUIRING PDF PROCESSING

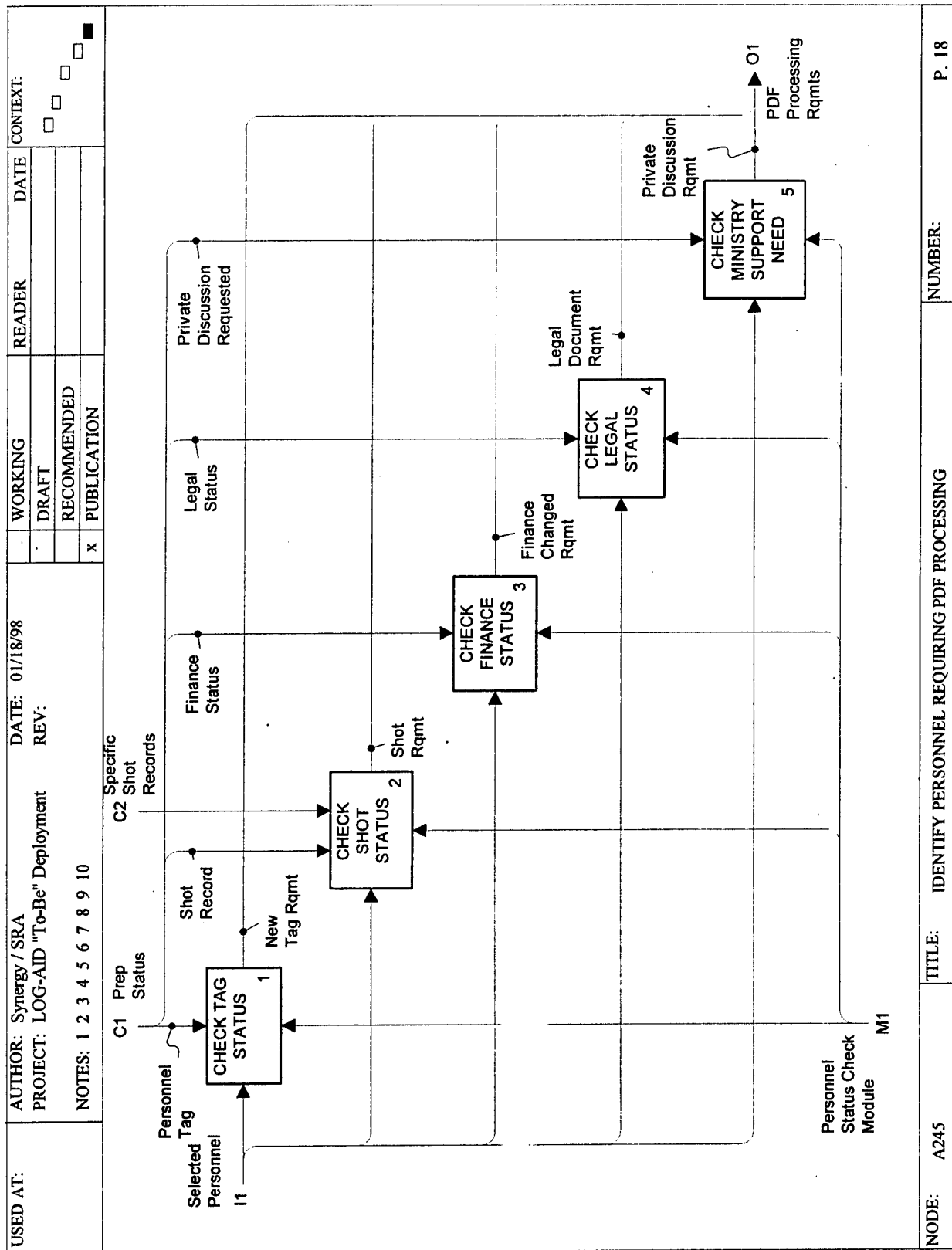
While there is a need to make the PDF processing line available in some form, not all personnel should require PDF processing. A comparison between information in the selected personnel files and the requirements for the deployment identifies the personnel requiring PDF processing requirements.

The personnel file contains an indication for the need of a new dog tag. Maintenance of these tags should be done as necessary during day-to-day operations, but exceptions may occur. There exists a standard set of shot requirements for deployment status. The LOI identifies shots specifically required for the deployment. Mapping these requirements to those in the personnel file produces a list of shot requirements for each deploying individual.

The finance status guidelines provide suggestions for arranging financial information in preparation for a deployment. During the normal day-to-day operations, each individual reviews these suggestions and provides an indicator in the personnel file as to whether or not their financial records are ready for them to deploy. In much the same manner as the financial records are maintained, the legal status is also confirmed.

The planning for and presentation of ministry support prior to the notification of a deployment are impractical. It is possible for the deploying personnel to indicate that need, however, prior to processing through the PDF. Upon their notification of deployment, each deploying personnel connotes in their personnel file their desire of whether or not to receive ministry support. This summarized list becomes a part of the PDF processing requirements and provides the primary indicator for the need of the PDF line.



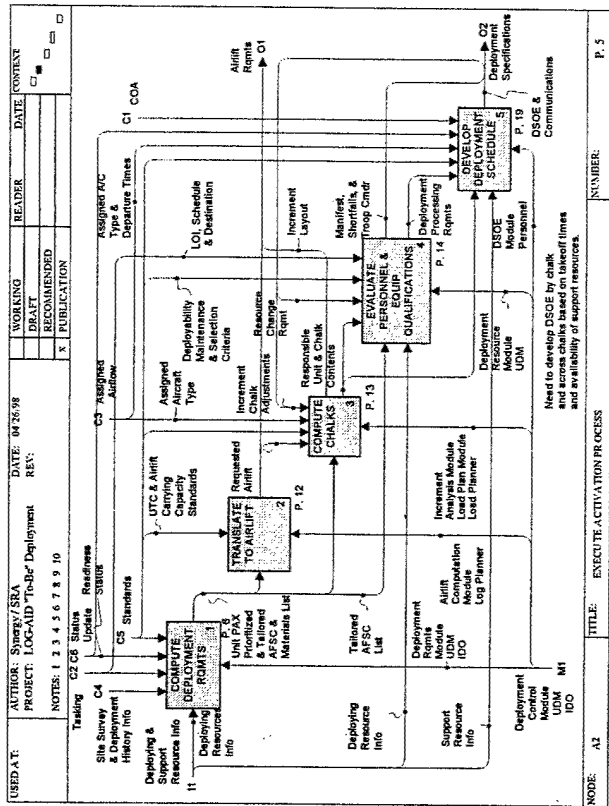


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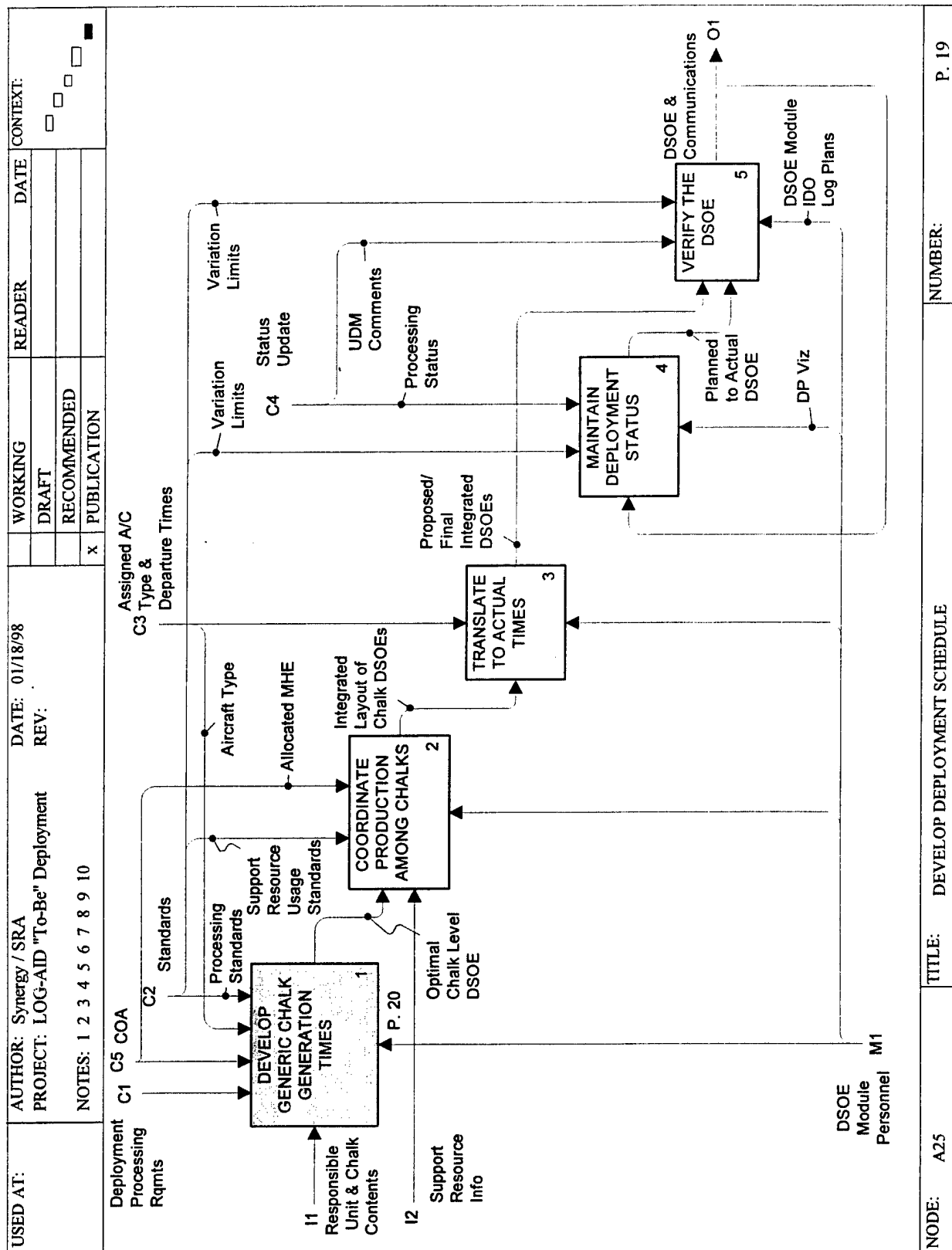
Knowing their deployment and loading requirements for each chalk, each unit computes an optimal unit level DSOE that assumes full access to the base deployment support resources. Development of this optimal schedule starts with a standard set of processing duration times rather than start and completion times for the processing segments. Adjustments to these standard times reflect the physical locations of the deployment operations within the base as well as security movement restrictions existing on base as specified in the COA. Additional adjustments reflect the types and amount of deployment processing requirements specified for the unit deployment processing.

Because of conflicts with availability of support capabilities, coordination among the individual chalk schedules produces a generic, integrated DSOE across all chalks. When the departure times for the assigned airlift become known, the generic interval timings are used and adjusted to build backward from the airlift departure times.

The user reviews the completed DSOE and inputs adjustments as necessary. Distribution of the user-approved DSOE provides the master schedule for the entire deployment process. As the deployment occurs, status updates received at various points in the process are mapped to the DSOE. This mapping identifies variations between the planned and actual processing progress. As these variations exceed pre-established limits, the variations are highlighted and presented to the user for analysis. In a majority of cases, distribution of the annotated DSOE suffices to get the



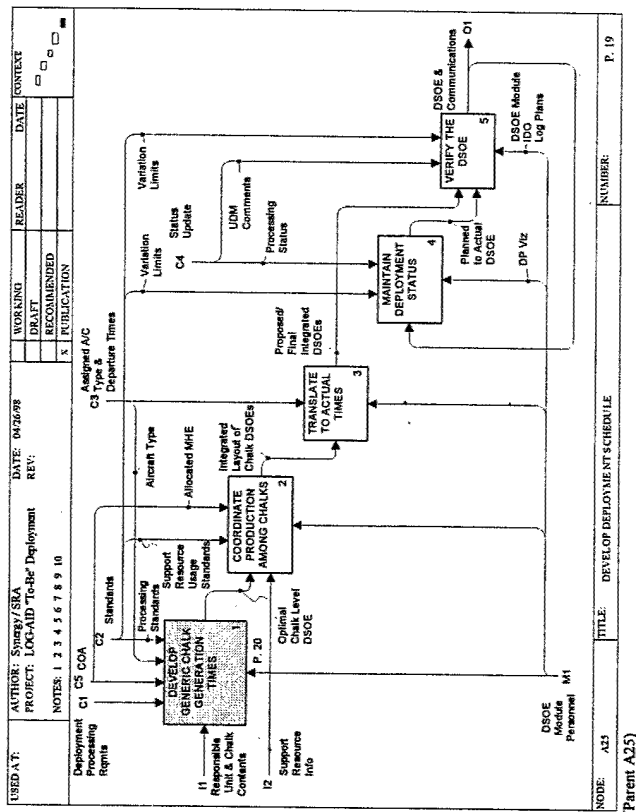
(Parent A2)
deployment activity on track. Otherwise, communications between the user and the UDM, or responsible person, clarifies and corrects the problem.



A251 DEVELOP GENERIC CHALK GENERATION TIMES

Standard times exist for the preparation and processing of UTCs. Using these standard times as the baseline preparation time for each increment, adjustments to the time reflect the uniqueness of a specific deployment effort. Personnel preparation time changes in accordance with the number of individuals being deployed and the cargo processing time changes in accordance with the number of increments identified for processing through the in-check. The cargo and personnel movement times consider the location and length of the move along with the personnel and cargo quantity to compute the start of the resource movement. The loading time represents the standard loading time for an aircraft type since the goal of the improved deployment is to have a full chalk.

The above process description focuses on the processing by one unit. When a chalk comprises increments from two or more units, processing coordination must exist to allow for the efficient sharing of common resources such as the CDF and PDF. Incorporating the adjustments produces the optimal unit level DSOE, which forms the primary controlling guide for the preparation of that chalk.



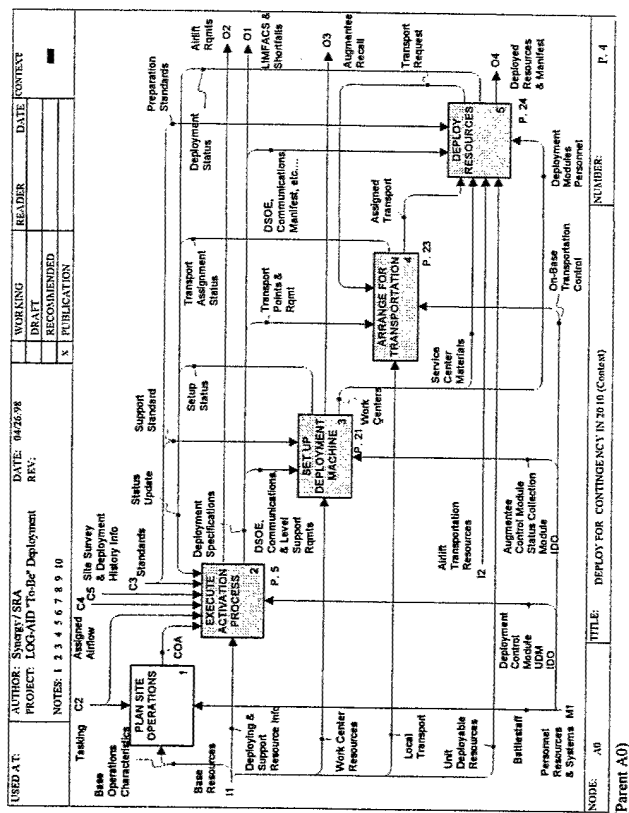
A3 SET UP DEPLOYMENT MACHINE

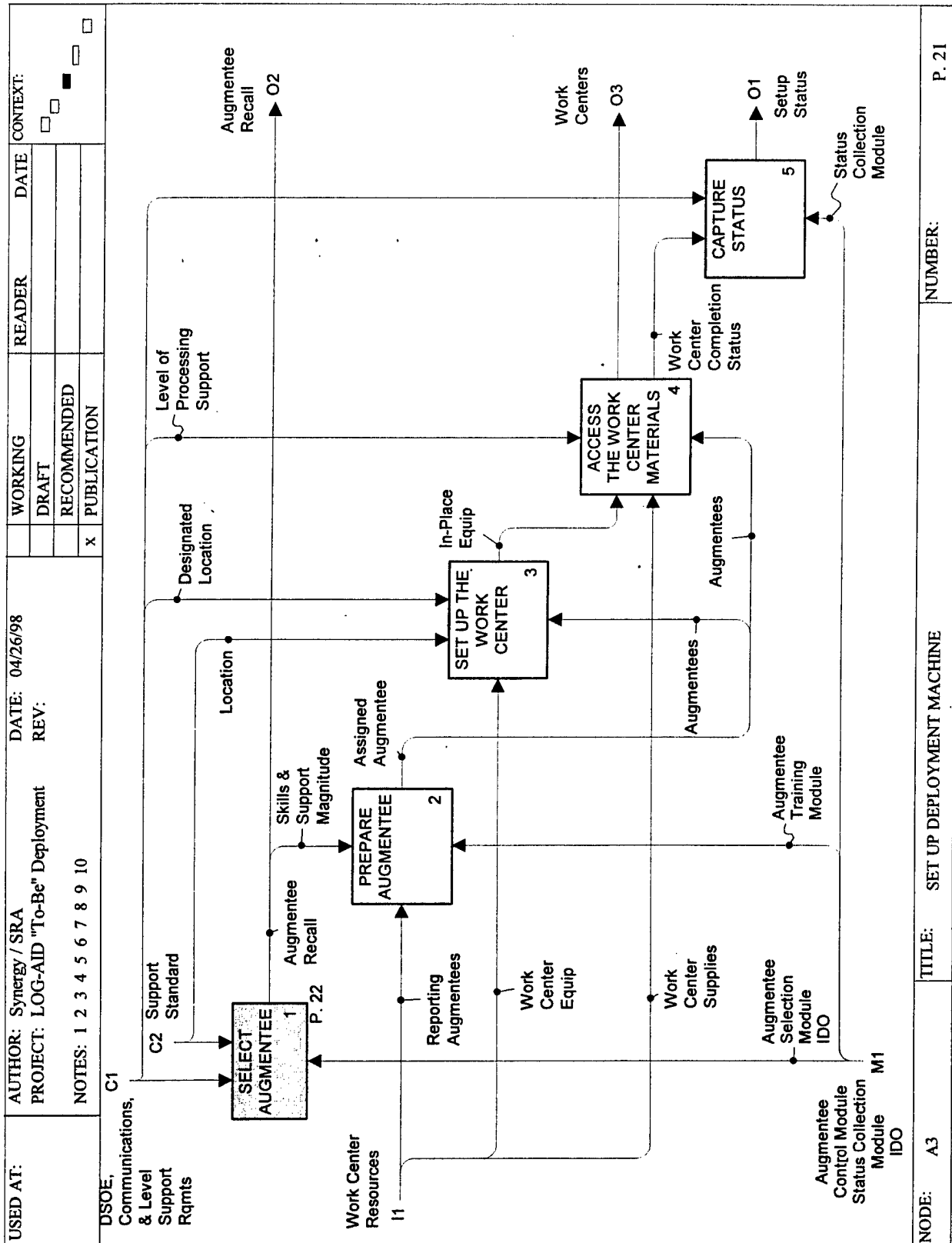
Accomplishing the deployment effort requires a support structure consisting of support personnel or augmentees and workstations at which augmentees perform specific deployment tasks. The level of activity at any one workstation may change significantly among deployments. Therefore, the computation of the deployment requirements and the deployment DSOE drive the level and type of deployment support required. Considering this level of support, the augmentee selection process schedules the augmentees to report for duty.

As the selected augmentees arrive for duty, a review of their deployment experience identifies the training needed for each augmentee in order for them to effectively perform their assigned deployment task. Providing the defined training prepares the augmentee for the assigned deployment task.

Augmentee duties consist of two aspects -- setting up the deployment capabilities and using those capabilities to perform the deployment. Represented in this diagram are the activities for setting up the deployment capabilities. Most deployment bases have defined locations for their work centers. However, these standard locations may change due to deployment conditions such as deployment size and threat conditions. The COA, therefore, provides the means by which the battle staff documents their decisions for the deployment specific locations of the work centers. Knowing the designated work center locations, the augmentees access and set up the equipment necessary for the work center to function. Then, considering the level of processing support needed to accomplish the deployment, the appropriate supplies are accessed. These supplies include such materials as blank personnel identification cards, blank dog tags, medications required for the shots, etc.

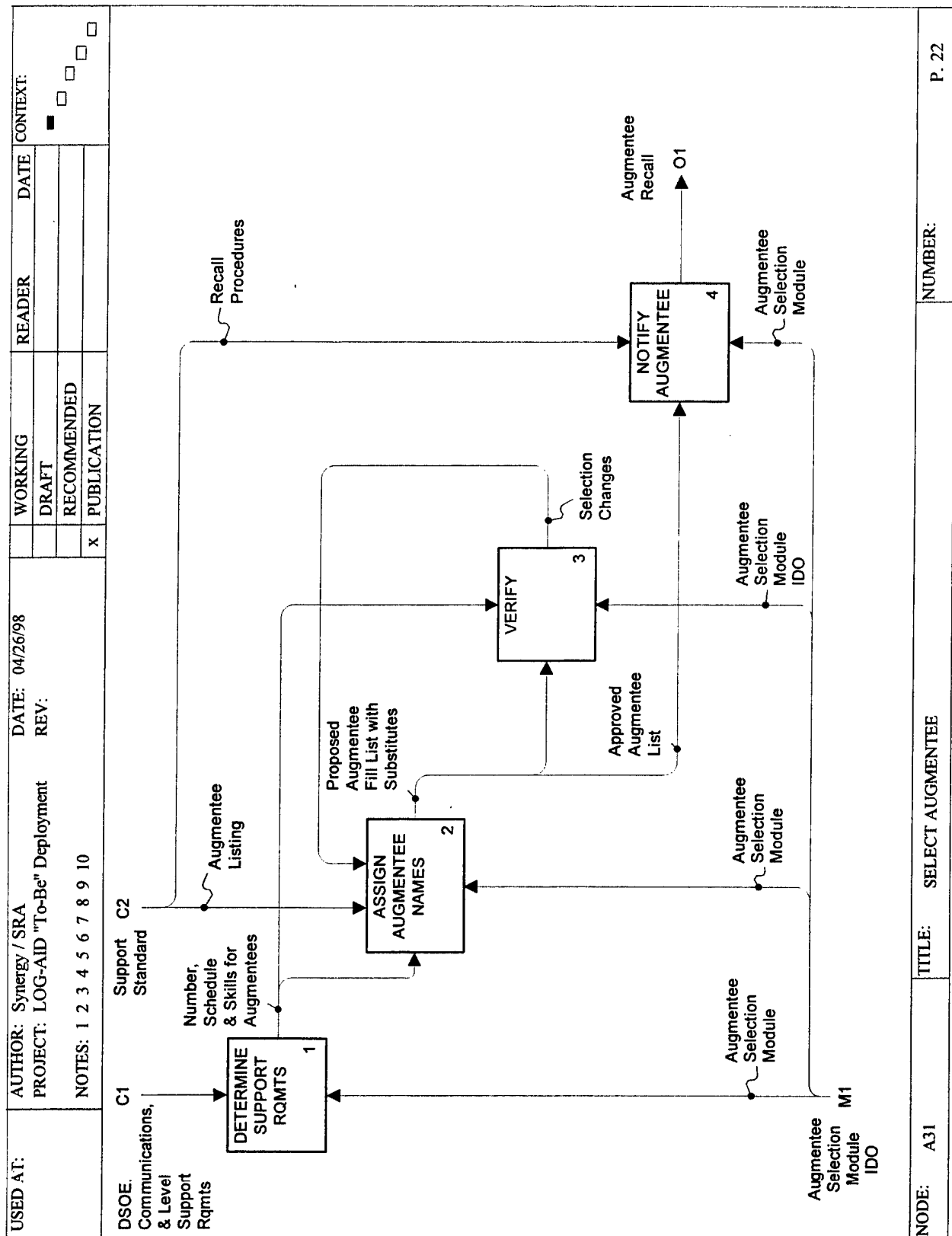
At the completion of the work center setup, a setup status goes to the DSOE monitoring effort.





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When accepted by the user, notification sent to the augmentees informs them when and where to report, along with a minimal description of their planned responsibilities.



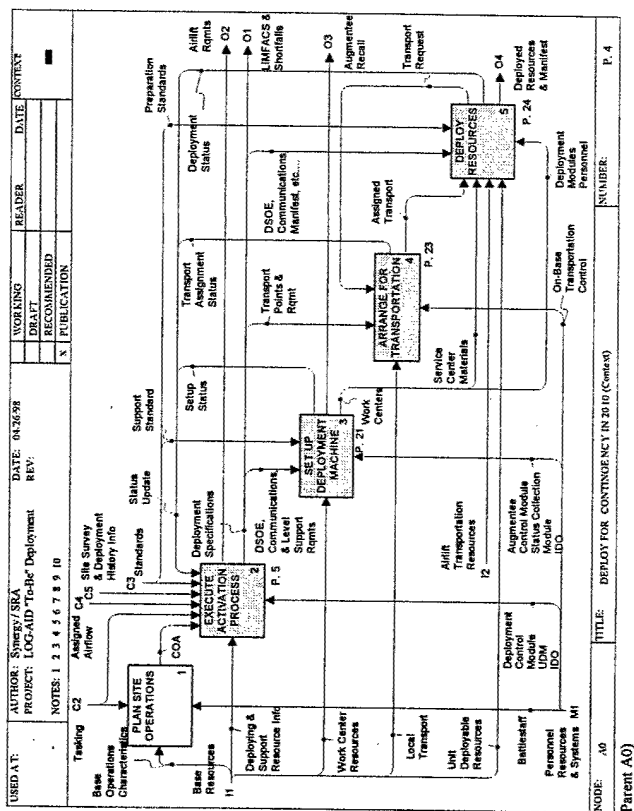
A4 ARRANGE FOR TRANSPORTATION

Through the definition of the deployment requirement is defined the amount and type of cargo and personnel requiring transporting, the time frame in which the requirement occurs, and the beginning and ending points for each transporting leg. Mapping the transporting requirements to the on-base transportation capabilities identifies the type of transportation capabilities required for the deployment. Comparing the transport capability requirements, the availability of on-base transportation, and the transporting time and paths produces a proposed assignment schedule for on-base conveyances. This comparison also identifies any projected transporting deficiencies. One way of satisfying these deficiencies is to arrange for contract support. Thus, the deficiencies are matched to available contracting resources and one or more contracting potentials are identified to satisfy the deficiencies. The proposed on-base and proposed contracted transportation vehicle schedule is presented to the on-base controller for review.

The user adjusts the transporting schedule as necessary. The adjustments are fed back to update the on-base transportation database. The approved on-base transport schedule becomes available to support the performance of the deployment.

As transportation requests arrive, either as driven by the DSOE or by personal requests, the coordination module proposes the assignment of a conveyance based on the approved schedule. This proposed assignment is presented to the assignment user who adjusts it as necessary and makes the necessary communications to initiate the availability of that conveyance. Information from the assignment is fed back to update the assignment schedule and availability of the transporting capability list.

(The development of the local transportation resources requires a database of transportation capabilities, maintained similar to that used for the tracking of the deployable equipment.)



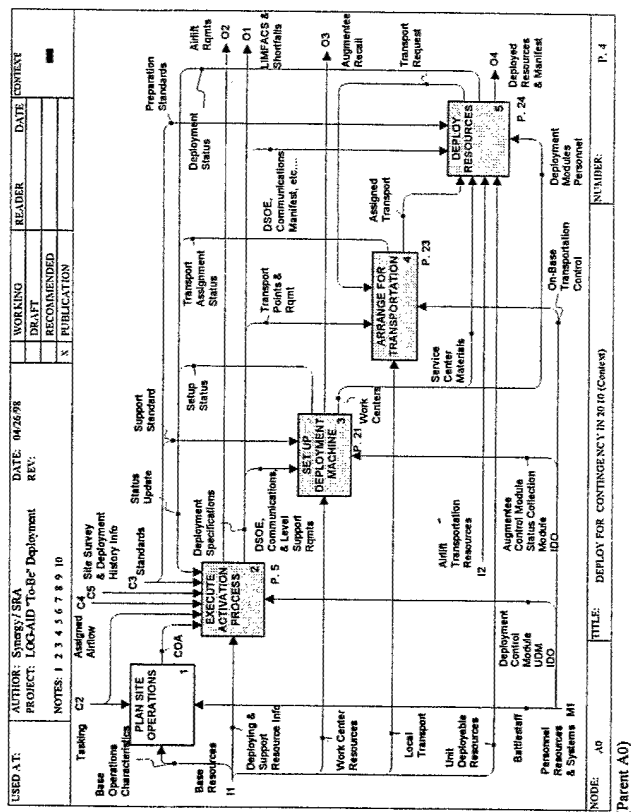
A5 DEPLOY RESOURCES

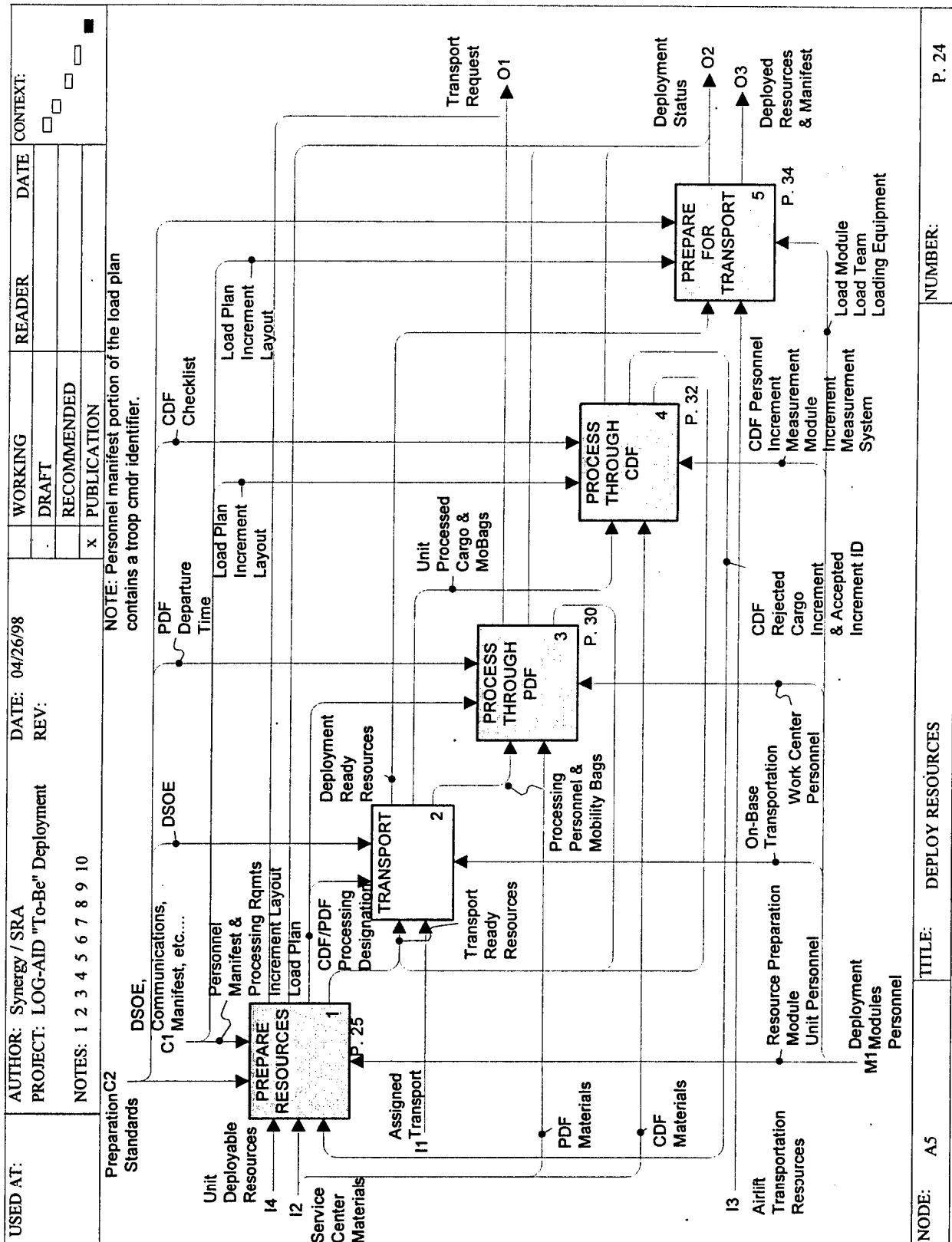
Once identified, preparation of both personnel and cargo focuses on getting them ready for loading onto the transporting conveyance. Standards control this preparation by specifying, to a great extent, who needs what to satisfy the deployment requirements. Information provided to the unit includes their preparation schedule, the list of personnel being deployed, and the name of the troop commander for the chalk of which they are a part.

Those deploying personnel requiring processing complete as much of the processing as possible at the unit location. Those individuals requiring PDF processing are transported to the PDF for completion of the processing and then returned to the unit. As necessary, travel orders are generated at each unit by extracting information developed during the planning step. At the time designated in the DSOE, the personnel move to a sterile area near their transporting area.

Much like the personnel processing, the cargo elements selected for deployment are prepared and brought together as increment groupings. A check is made to ensure correlation between items and manifest, and the existence of electronic documents for the hazardous materials. The actual loading of the cargo elements into the increments is done in accordance with the predefined packing designation for the assigned transports. As each increment is completed, the necessary transporting requirements are sent to the on-base transport controller. On the way to the chalk area, the transporters have the increment measured and weighed, and if designated, have it processed through the CDF on its way the secured chalk area.

Within the controlled areas, the personnel and cargo wait for loading time. During this waiting time, any last minute problems are addressed and the identified chalk's troop commander takes control of the personnel.





A51 PREPARE RESOURCES

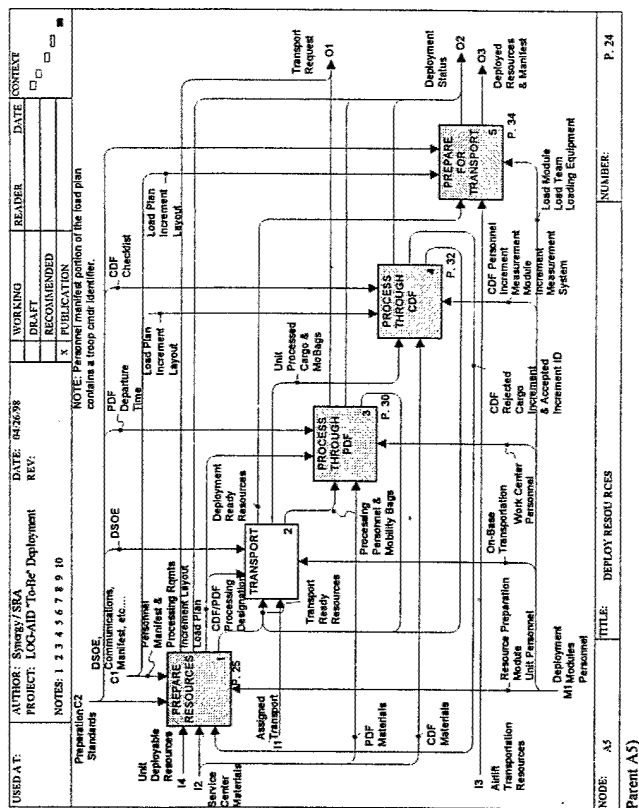
With the specific personnel and equipment identified for deployment, the unit focuses on preparing those resources for loading into the transporting aircraft. Using the list of identified personnel, notifications transmitted to the individuals inform them when to report to their unit. Using the list of selected equipment, preparation efforts access the equipment, thus beginning the cargo preparation processing.

For each of the selected personnel, status updates include checking the medical records with respect to the deployment medical requirements, updating as many of the requirements as possible within the unit, and identifying any processing requirements to be done during the actual deployment processing. The personnel preparation may require materials normally available within the service centers of the PDF. For the selected equipment, status updates include the necessary maintenance and packaging.

The unit prepared cargo elements aggregate into increments as defined and specified through the load plan and increment layout respectively. This increment building includes checks to ensure the accuracy of the increment. This checking process may identify specific equipment items that require replacement. The prepared personnel and increments move to a holding area in preparation for further processing.

As the increment building process progresses, an indication placed on each increment specifies the processing path to be taken by the increment from the unit and to the transporting aircraft. The increment CDF processing requirements specify primarily whether the increment must go through in-check.

Increments and personnel move to a unit holding area at the completion of preparation and, as the time nears for departure, to the transporting aircraft. When all resources are ready, a preparation completion notification transmits for reference to the DSOE. A notification to the on-base transportation identifies the amount of resources ready for transport.



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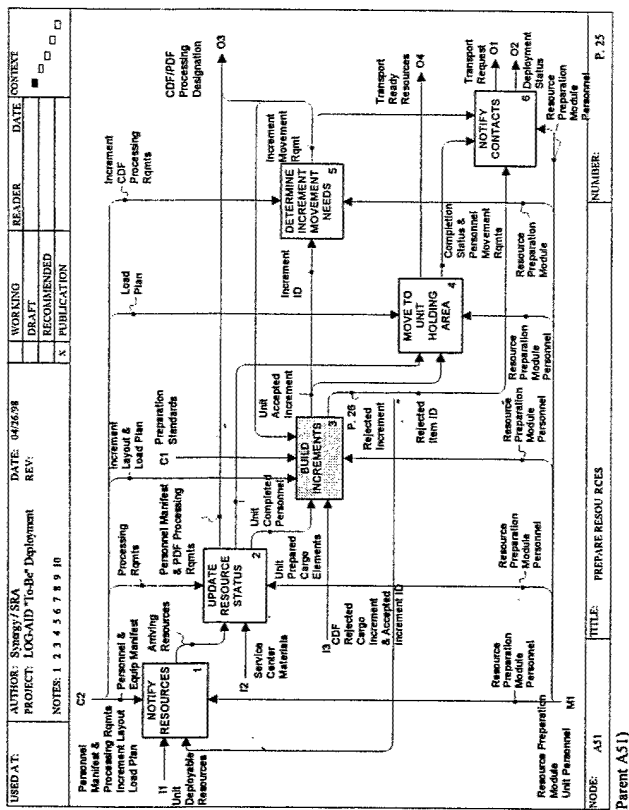
graph TD
    I1[Personnel Manifest & Processing Rqmts Increment Layout Load Plan] --> 1[NOTIFY RESOURCES 1]
    I2[Arriving Resources] --> 1
    1 --> 2[UPDATE RESOURCE STATUS 2]
    2 --> 3[BUILD INCREMENTS 3]
    2 --> 4[MOVE TO UNIT HOLDING AREA 4]
    2 --> 5[DETERMINE INCREMENT MOVEMENT NEEDS 5]
    2 --> 6[NOTIFY CONTACTS 6]
    3 --> 4
    3 --> 5
    3 --> 6
    4 --> 5
    5 --> 6
    6 --> M1[Resource Preparation Module M1]
    4 --> M1
    3 --> M1
    2 --> M1
    1 --> M1
    M1 --> M1
  
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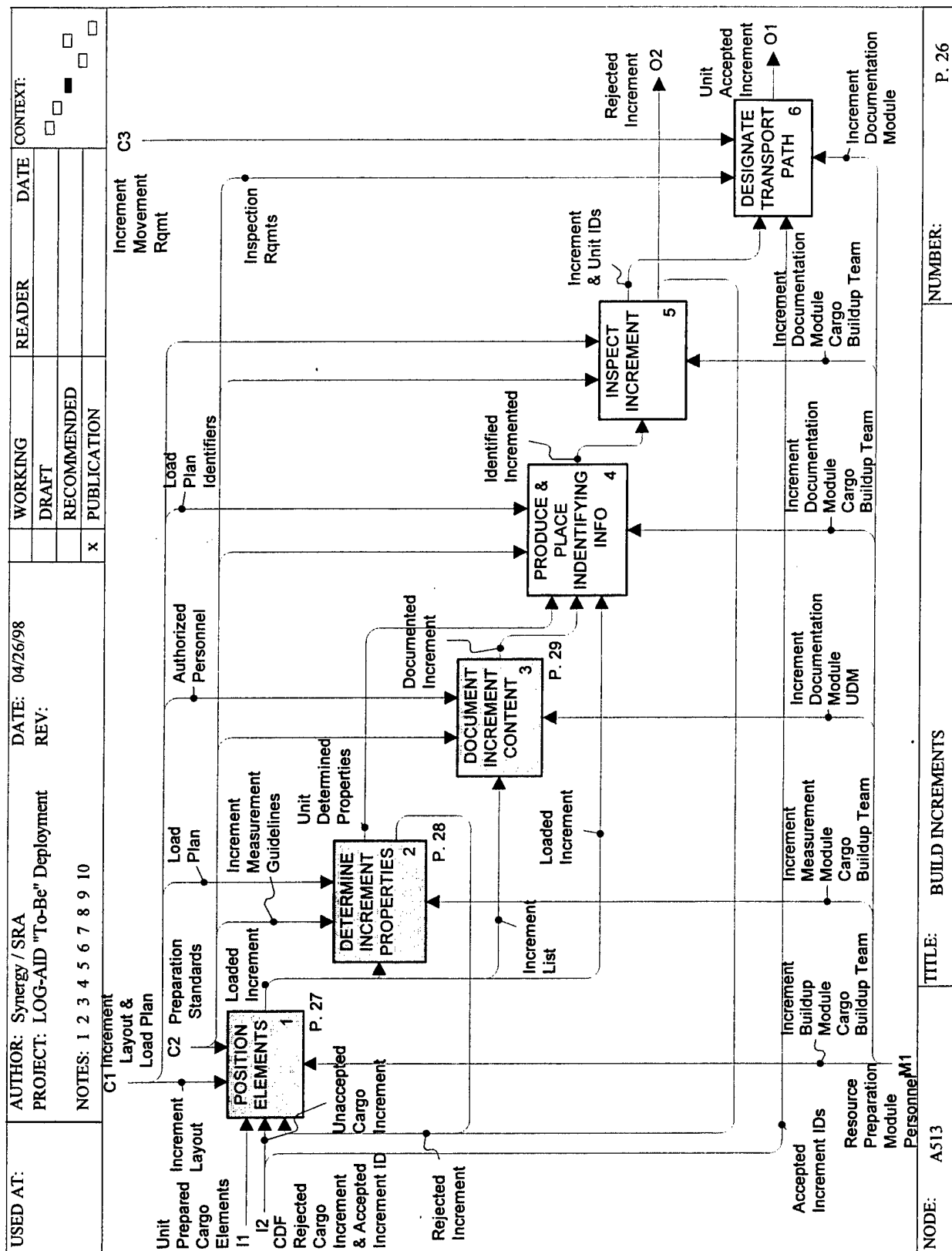
A513 BUILD INCREMENTS

The units designated for deployment prepare their cargo and move it towards the transporting aircraft in accordance with the DSOE. In preparation for building the increments, the unit prepares the individual cargo items or elements designated for deployment.

Building the increment requires the placement of these items onto a pallet or into a cargo box. The increment layout illustrates the placement that satisfies all the packing standards established for flight safety. Computing the increment properties determines whether or not the increment satisfies the limitations specified in the load plan. Adjustments to the increment packing correct any measurement problems identified for the increment.

As the increment build occurs, a listing of the contents provides a manifest for the increment. The computed properties are documented along with the increment manifest, both of which are attached to the increment for immediate reference. A unit inspection ensures that the increment meets all the necessary guidelines. A reference made to the increment's subsequent inspection requirements determines the path taken by the increment from the unit to the transporting aircraft.





USED AT:	AUTHOR: Synergy/ SRJA	DATE: 04/25/98	WORKING	READER	DATE	CONTEXT
	PROJECT: LOGAID To-BE Deployment <td>REV:</td> <td>DRAFT</td> <td></td> <td></td> <td><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></td>	REV:	DRAFT			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	NOTES: 1 2 3 4 5 6 7 8 9 10		RECOMMENDED			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
			X PUBLICATION			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

C1 Increment

Unit Increment
Prepared Layout
Cargo Elements
1/2 CDF
Rejected Increment
Unassigned Increment
& Accepted Increment
Rejected Increment

C3 Increment

Unit Increment
Prepared Layout
Cargo Elements
1/2 CDF
Rejected Increment
Unassigned Increment
& Accepted Increment
Rejected Increment

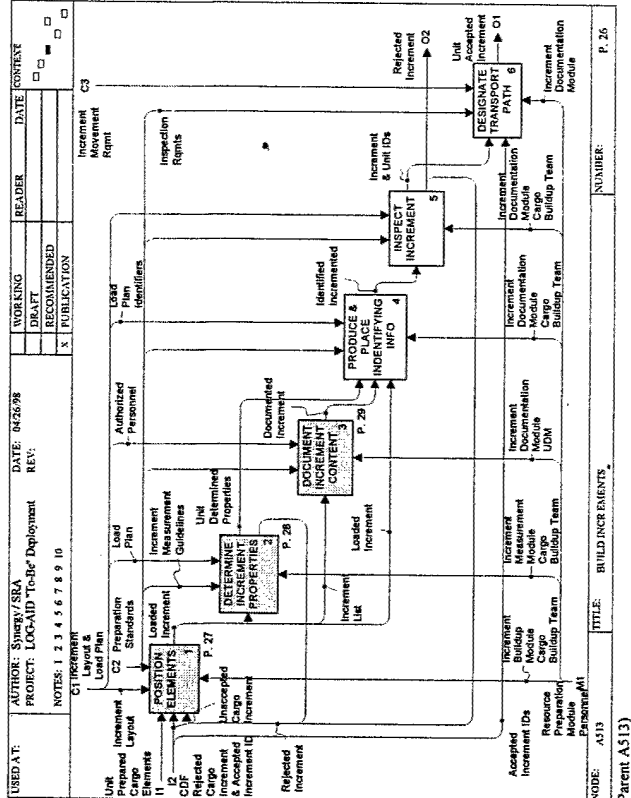
C3 Increment

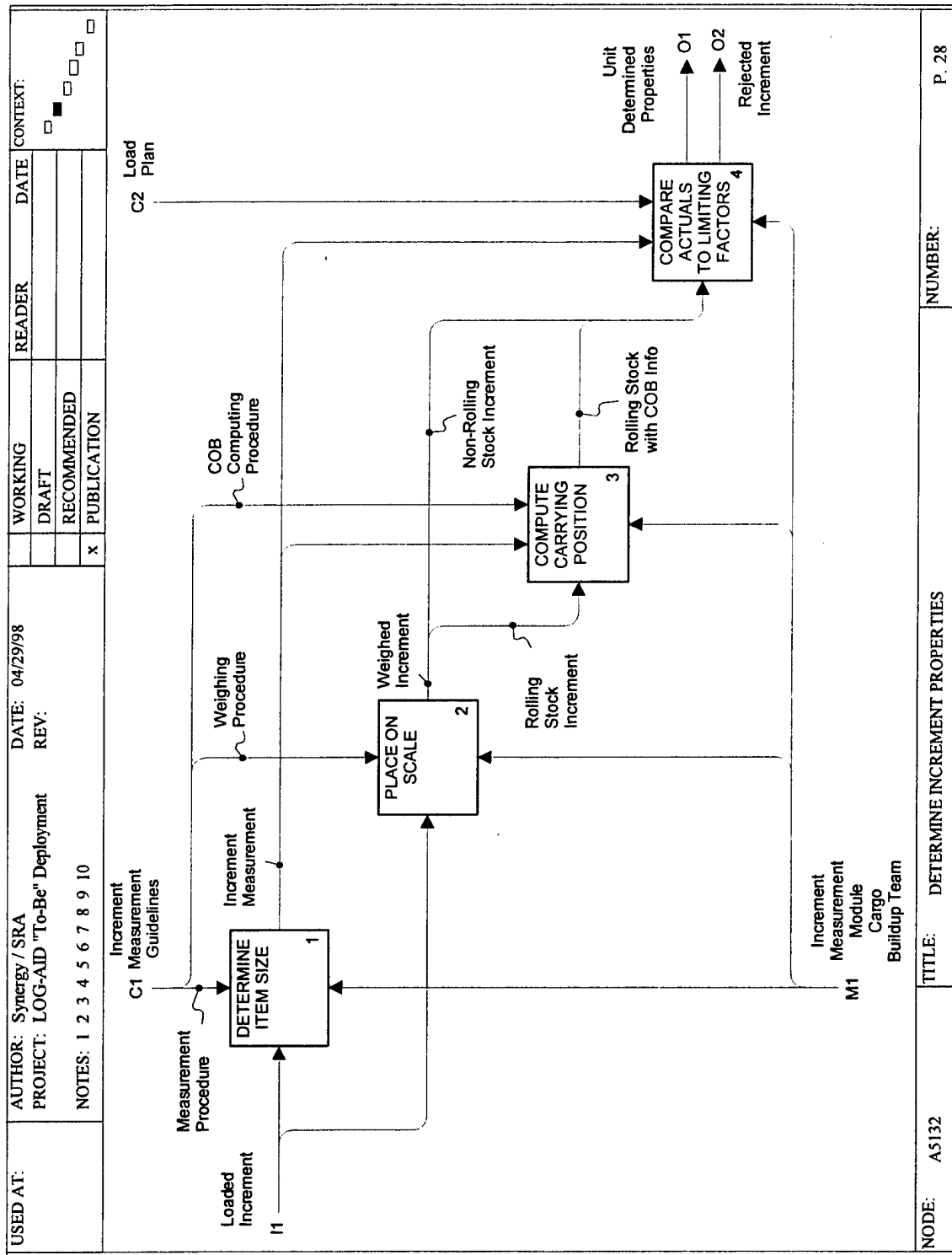
Unit Increment
Prepared Layout
Cargo Elements
1/2 CDF
Rejected Increment
Unassigned Increment
& Accepted Increment
Rejected Increment

Upon receipt of the unaccepted or rejected increment, a quick review reveals the cause of the rejection. At this point in the deployment process, the causes usually consist of improper building of the increment or improper placement of hazardous items within the increment. Information provided by those who noted the increment as frustrated usually identifies the cause of the frustration. Otherwise, repeating the inspection process that involves comparing the increment to preparation standards and to the planned increment build design determines the rejection cause. Knowing the adjustment requirement allows the correction team to replace and adjust the problem items, and then redoing the necessary restraints or netting covering the increment.

For the first time build of the increment, the cargo items are prepared for shipping and are packaged together into an increment, according to the preparation standards and the planned increment layout design. If the increment is a rolling stock or cargo box, it is secured. If the increment is a pallet, restraints, usually in the form of netting, are placed around the increment to secure all items in place.

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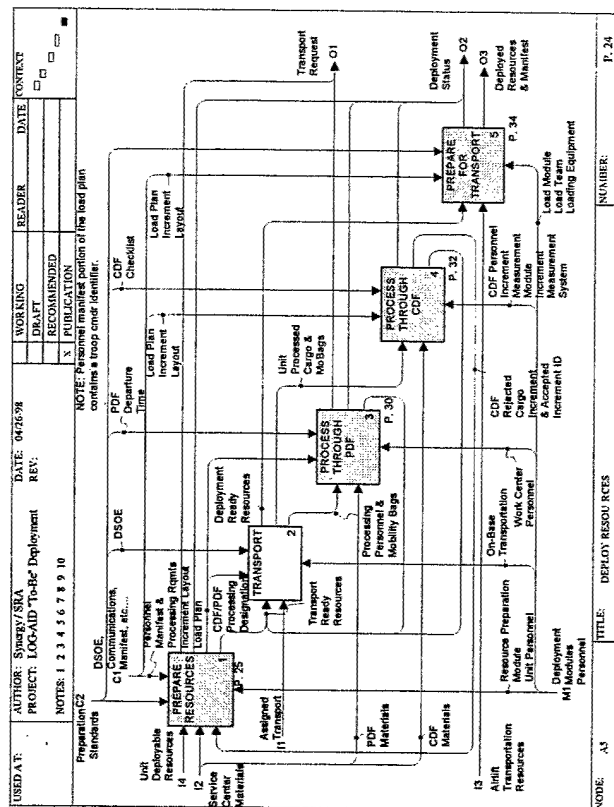
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Unit deploying personnel arrive at the PDF, verify their place on the designated chalk via the unit personnel manifest, and hand over any mobility bags required for the deployment. When collected, the mobility bags are palletized and placed in a holding area. Because their PDF processing requirements were identified as part of the unit preparation, each individual proceeds to the necessary workstations within the PDF. Individuals fully prepared prior to arriving at the PDF proceed directly to the holding area. Individuals requiring some type of processing join those in the holding area as they complete their processing.

As each workstation processes an individual, information automatically recorded identifies the individual and unit. At the completion of the deployment processing, the automated compilation of the records summarizes statistics regarding the PDF processing requirements.



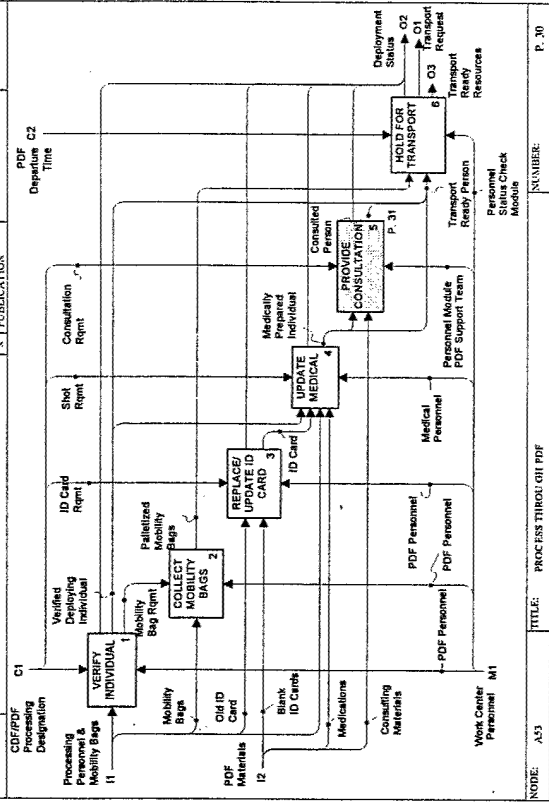
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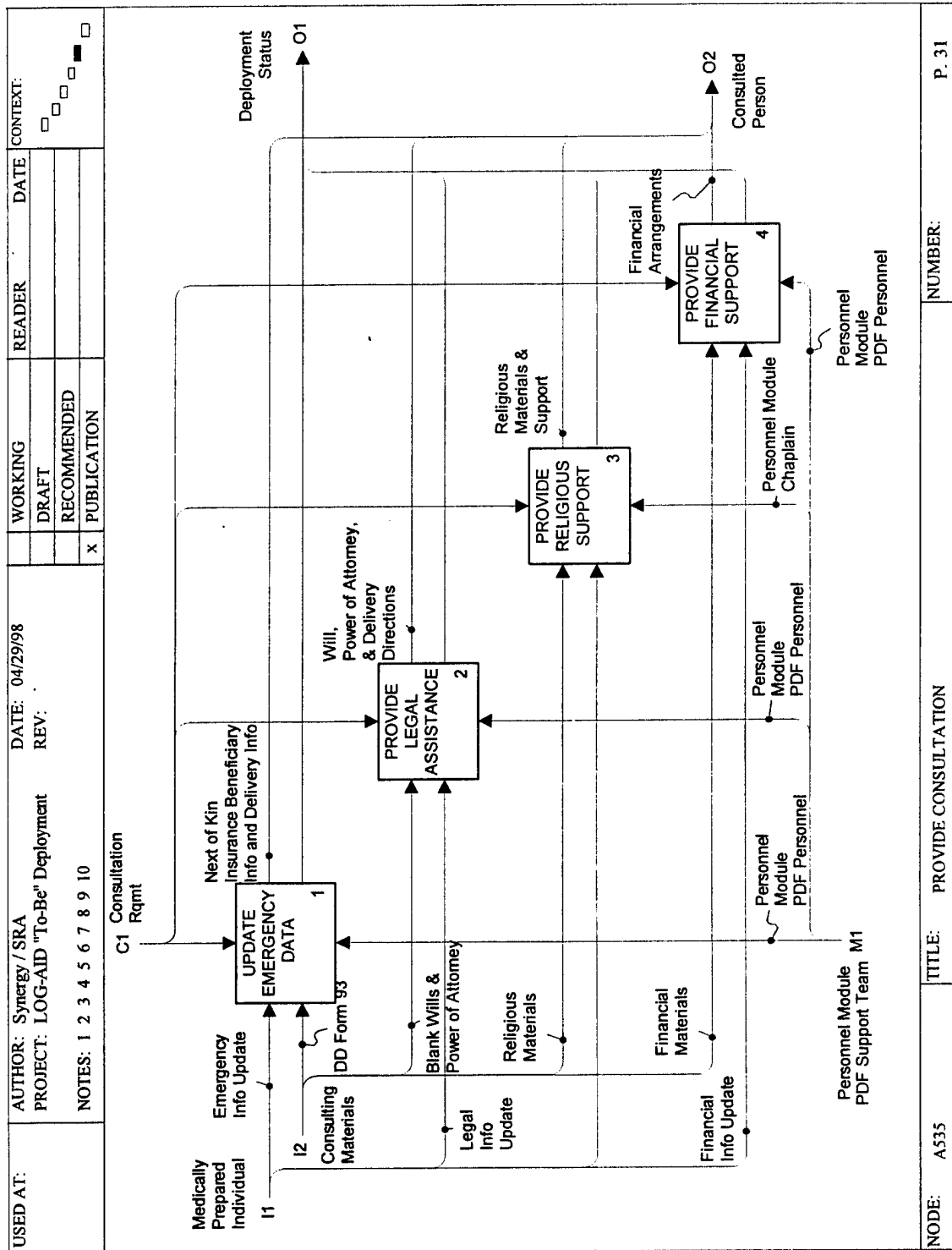
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During normal day-to-day unit operations, each individual maintains information critical to deployment. At times, the need for specific consultation for a deployment may arise. The unit processing identifies these consultation requirements, allowing the consultation to occur at the unit site or during a PDF visit, depending on the number of personnel involved.

The consultations begin after satisfying the deploying person's medical requirements. The consultations begin with the update of emergency information and continue with the preparation of legal documents, the providing of religious support, and the adjustments of financial information.

Personnel are not required to complete each consultation, only those deemed necessary for the deployment.



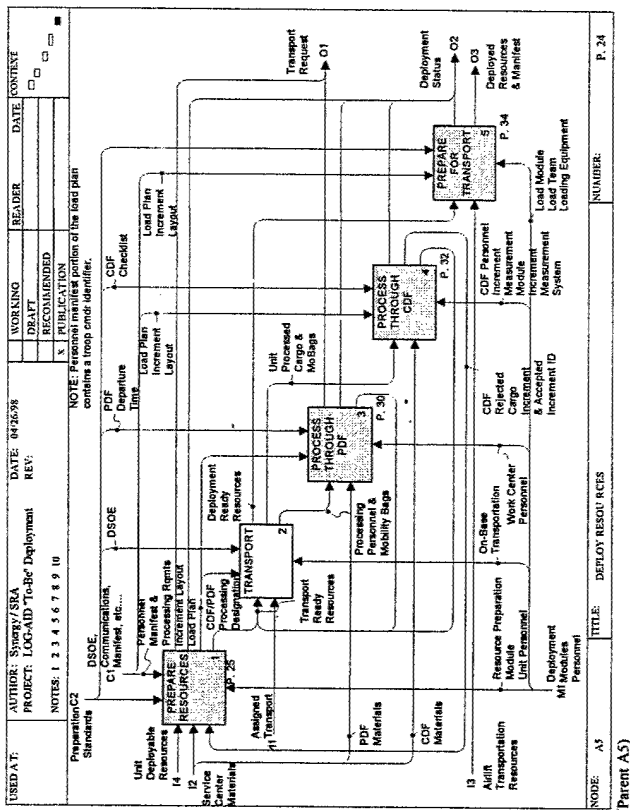


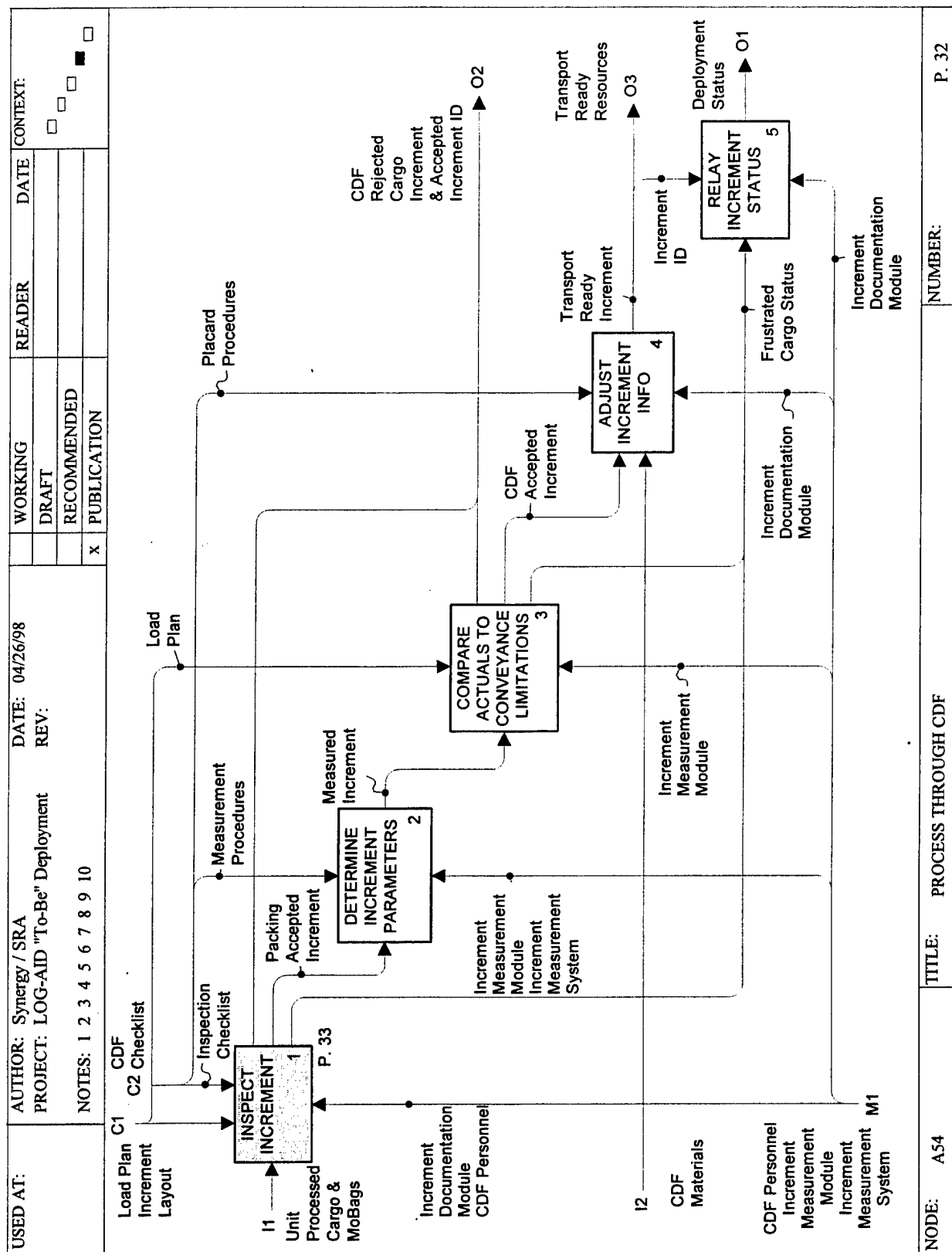
A54 PROCESS THROUGH CDF

Inspections of those increments identified for processing through the CDF verify that the increment packing meets flight safety requirements. The controlling factors for the inspections include the increment layout used to build the increment and the CDF inspection checklist. This checklist defines what aspects of an increment need inspection and the standard rules for packing a pallet.

Measurements taken of the correctly packed increment are used to adjust the unit-determined measurements. A review of the measured increment to the load plan verifies that the increment fits correctly into the designated airlift. Knowing the increment fits into the designated airlift, the necessary adjustments update the placard attached to the increment.

The status of the CDF processing, collected on a regular basis, becomes available to those needing that information.

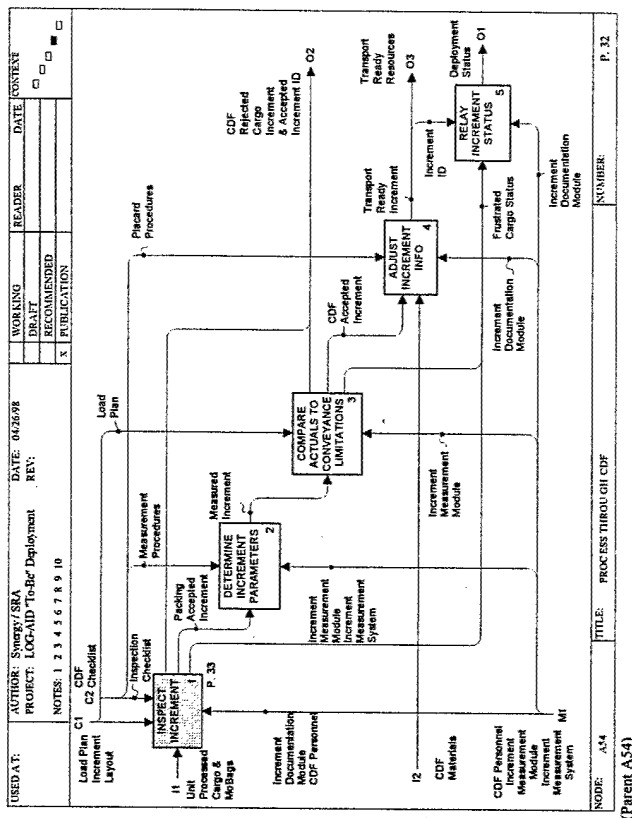


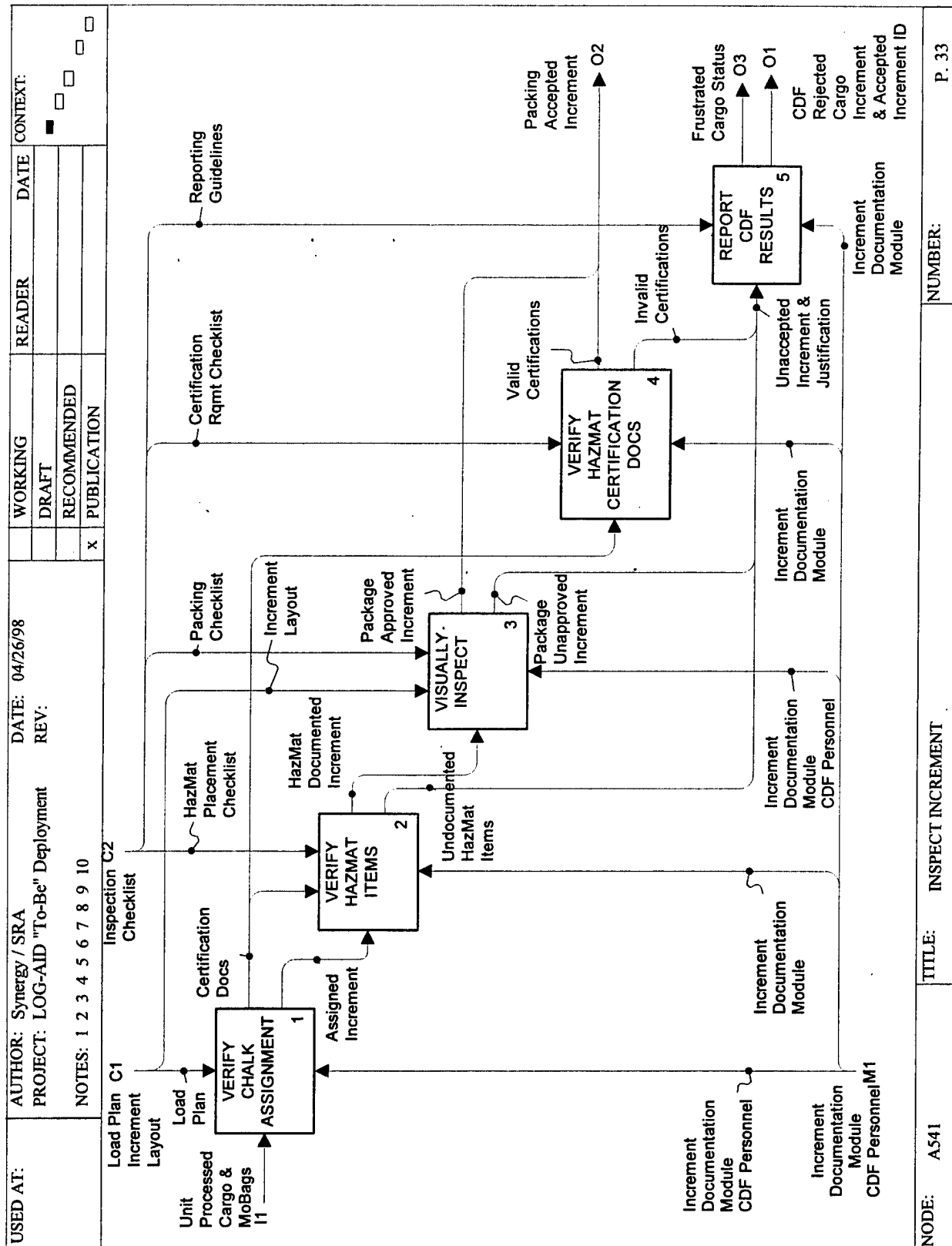


A541 INSPECT INCREMENT

The CDF inspects unit prepared cargo on an increment-by-increment basis. The increments inspected include those designated for inspection and those selected as a sampling set. As an increment arrives at the CDF, the increment number is validated against the load plan ensuring the increment is designated to the correct chalk. Using the HazMat Certification documents accompanying the increment, a comparison between the certifications and the HazMat items confirms that each HazMat item is documented. A continued inspection of the increment correlates between the pallet layout and the specified increment layout to ensure the correct positioning of the items, especially the HazMat items. The increment layout and the packing checklist also provide the guidelines for visually inspecting the packing of the total increment. Finally, a review of the HazMat certifications ensures they are correct and signed by an authorized individual.

Any problems found with the increment are documented, the increment is identified as frustrated, and both the increment and associated reason for the frustration are presented to the preparing unit.





Deployment C2 Standards

Legend:

- Unit Deployable Resources
- Service Center Materials
- Personnel Processing Ready
- TRANSPORT
- Unit Transport
- PROCESS TRANSPORT PDF
- On-Base Transportation Work Center Personnel
- Resource Preparation Module
- Unit Personnel
- Deployment M4 Personnel
- Deployment Status
- PREPARE FOR TRANSPORT
- Transport Request
- Deployment Status
- Deployed Resources & Manifest
- Load Plan Increment Layout
- Load Team Loading Equipment

Flowchart Details:

- Unit Deployable Resources (12)** and **Service Center Materials (13)** feed into **PREPARE RESOURCES (14)**.
- PREPARE RESOURCES (14)** is linked to **DSCOE** and **DSOE**.
- PREPARE RESOURCES (14)** leads to **Personnel Processing Ready (15)**.
- Personnel Processing Ready (15)** leads to **TRANSPORT (16)**.
- TRANSPORT (16)** leads to **Unit Transport (17)**.
- Unit Transport (17)** leads to **PROCESS TRANSPORT PDF (18)**.
- PROCESS TRANSPORT PDF (18)** leads to **On-Base Transportation Work Center Personnel (19)**.
- On-Base Transportation Work Center Personnel (19)** leads to **Resource Preparation Module (20)**.
- Resource Preparation Module (20)** leads to **Unit Personnel (21)**.
- Unit Personnel (21)** leads to **Deployment M4 Personnel (22)**.
- Deployment M4 Personnel (22)** leads to **Deployment Status (23)**.
- Deployment Status (23)** leads to **PREPARE FOR TRANSPORT (24)**.
- PREPARE FOR TRANSPORT (24)** leads to **Transport Request (25)**.
- Transport Request (25)** leads to **Deployment Status (26)**.
- Deployment Status (26)** leads to **Deployed Resources & Manifest (27)**.
- Deployed Resources & Manifest (27)** leads to **Load Plan Increment Layout (28)**.
- Load Plan Increment Layout (28)** leads to **Load Team Loading Equipment (29)**.

Feedback Loops and Decision Points:

- Checklist** and **CDF** (Command Decision Function) are used for decision-making throughout the process.
- Unit Transport (17)** has a feedback loop to **Personnel Processing Ready (15)**.
- On-Base Transportation Work Center Personnel (19)** has a feedback loop to **Resource Preparation Module (20)**.
- Unit Personnel (21)** has a feedback loop to **Deployment M4 Personnel (22)**.
- Deployment M4 Personnel (22)** has a feedback loop to **Deployment Status (23)**.
- Deployment Status (23)** has a feedback loop to **PREPARE FOR TRANSPORT (24)**.
- PREPARE FOR TRANSPORT (24)** has a feedback loop to **Transport Request (25)**.
- Transport Request (25)** has a feedback loop to **Deployment Status (26)**.
- Deployment Status (26)** has a feedback loop to **Deployed Resources & Manifest (27)**.
- Deployed Resources & Manifest (27)** has a feedback loop to **Load Plan Increment Layout (28)**.
- Load Plan Increment Layout (28)** has a feedback loop to **Load Team Loading Equipment (29)**.

In majority of situations, the loading of the increments occurs prior to loading the personnel. However, certain load plans may dictate other loading sequences. For each chalk, positioning of the increments and personnel reflects that specified in the load plan. The cargo preparation standards specify how the increments arrive at the aircraft and how they move into position to minimize any unnecessary steps and time delays in the loading process. As positioning of each increment and individual occurs, an annotation on the load plan indicates their presence. At loading completion, the finalizing, review, and approval of the loading plan by the load master produces the load manifest for the aircraft. The aircraft is ready for take-off and the appropriate status report is transmitted to update the DSOE.

[illegible]

LOG-AID TO-BE ACTIVITY MODEL GLOSSARY

This section of the appendix contains the LOG-AID To-Be Activity model data glossary divided into two parts: (1) Input, Control, and Output Glossary and (2) the Mechanism Glossary which identifies both systems and personnel roles

The Input Control, and Output glossary contains three columns identified as Name, Definition, and Reference. The Name identifies an interface arrow within the model and the Definition describes what that arrow represents. The Reference column identifies the one or more diagrams on which that arrow name appears, with the reference list presented with respect to the model hierarchy. The Mechanism Glossary contains two columns: (1) the mechanism name, and (2) the mechanism description. The glossaries are sorted with respect to the name column.

LOG-AID TO-BE GLOSSARY

Name	Definition	Reference
# of Personnel/Increments	(Number of Personnel per Increments) The number of personnel and increments to be loaded on each chalk.	A251
30-Day Support	The amount of replacement materials that allows the operational capability of a UTC to continue for a period of 30 days.	A215
Accepted Increment IDs	(Accepted Increment Identifiers) A cargo increment that's physical packing is acceptable for safe loading into the transporting aircraft.	A513
Adjustment Criteria	The standards used to adjust standard UTC item content to better match a deployment time period than that used to build the standard UTC.	A215
Adjustment Requirement	(Adjustment Requirement) The reason to replace or repair an increment found to be frustrated or unacceptable for shipment.	A5131
Aircraft Type	The identification for the aircraft assigned to transport a chalk for deployment.	A25 A251
Airlift Carrying Capacity	The amount of material and personnel that can be safely transported in an aircraft type.	A22
Airlift Requirement Adjustments	(Airlift Requirement Adjustments) The adjustments made by a user to the airlift requirements proposed to them by the automated tools implemented to support that decision-making activity.	A22
Airlift Requirements	(Airlift Requirements) A listing containing short tons (STONS), volume, and size definitions for the cargo and personnel identified for movement, including a recommendation for the number and type of aircraft.	A-0 A-1 A0 A2 A22
Airlift Transportation Resources	The type and number of aircraft available to provide airlift in support of a deployment.	A-0 A-1 A-2 A0 A5 A55
Allocated MHE	(Allocated Material Handling Equipment) The equipment assigned within a base for use in supporting the deployment effort.	A25
Allocation Adjustment	A change, made by a decision maker within the deployment process, to the type and amount of support capabilities assigned to a deployment.	A214

Name	Definition	Reference
Anticipated Deployment Requirement	(Anticipated Deployment Requirement) Using various sources of intelligence information and personal connections, the type of missions the military may be required to support an event.	A-1
Approved Augmented List	A list of the individual selected for recall in support the planned deployment effort.	A31
Approved On-Base Transport Schedule	The equipment and its planned allocation of use to move personnel and cargo within a base during a deployment effort.	A4
Arriving Resources	The personnel and equipment brought into the unit's facility to initiate the deployment preparation process.	A51
Assigned A/C Type and Departure Times	(Assigned Aircraft Type and Departure Times) The type of aircraft assigned to transport one or more chalks and the time at which the aircrafts are scheduled to takeoff from the base.	A2 A25
Assigned Aircraft Type	The designation of the aircraft to which a specific chalk is designated for transport.	A2 A23
Assigned Airflow	The schedule of aircraft arriving and departing a base in support of a deployment.	A-0 A-1 A-2 A0 A2
Assigned Augmentee	Those individuals selected to support the current deployment effort, trained and ready to perform the assigned tasks.	A3
Assigned Increment	A cargo increment assigned to a specific chalk.	A541
Assigned Transport	The specific type of local transport conveyance assigned to satisfy the requirements of a transport request.	A0 A4 A5
Assignment Status	A report that annotates the list of deployable resources so as to identify those selected for deployment.	A24 A241 A242
Augmentee Listing	A list of all deployment processing augmentees for the deploying base.	A31
Augmentee Recall	Notification to the selected augmentees as to when and where they are to report for duty.	A-0 A-1 A-2 A0 A3 A31
Authorized Personnel	List of qualified individuals for signature authorization and means for contact.	A513
Authorized Signature List	The names of individuals qualified to sign the Hazardous Material documentation.	A5133

Name	Definition	Reference
Availability Criteria	The parameters considered when determining whether or not a specific resource (personnel and equipment) can be considered for selection to satisfy a deployment requirement.	A242
Available Resource	The resources meeting the availability criteria, thus, the resources from which a deployment requirement can be filled.	A242
Background Criteria	The parameters used to check the history of an individual as part of deciding whether or not that individual is available for filling a deployment requirement.	A242
Base Operations Characteristics	The manner in which personnel and facilities are currently being used on the base.	A0
Base Resources	The capabilities existing on the base and assigned to support a deployment as they are required.	A-2 A-1 A-0 A0
Blank ID Cards	(Blank Identification Cards) Personnel identification cards that are available within the PDF to be filled out with updated information or to replace worn or lost cards.	A53
Blank Wills & Power of Attorney	Blank forms for Wills and Power of Attorney that can be signed by an individual being deployed.	A535
Blended Increment Definition	The layout of the items contained within a blended increment and the unit identified as responsible for building and controlling the movement and deployment of that increment.	A23
Blended Increment Layout	The 3-dimensional building structure for increments composed of items from two or more UTCs or units.	A23
Cargo and Personnel ID & Placement by Chalk	(Cargo and Personnel Identifier and Placement by Chalk) The unique identifier for each increment and passenger within a chalk and the notation specifying where each increment is to be placed within the aircraft and where the passengers should be located.	A55
Cargo Prep Standards	(Cargo Preparation Standards) The rules defining how items must be arranged to produce an effective and safe increment.	A55
CB Computing Procedure	(Center of Balance Computing Procedures) The steps used to convert the weight and measurement information into the necessary center of balance designation.	A5132
CDF Accepted Increment	(Cargo Deployment Function Accepted Increment) An increment processed through the CDF and found to be accurately produced.	A54
CDF Checklist	(Cargo Deployment Function Checklist) A list of increment features checked as the increment passes through the CDF.	A5 A54
CDF Materials	(Cargo Deployment Function Materials) The blank forms and materials completed as cargo is processed through the CDF.	A5 A54

Name	Definition	Reference
CDF Rejected Cargo Increment & Accepted Increment ID	(Cargo Deployment Function Rejected Cargo Increment & Accepted Increment Identifier) Increments rejected during the CDF inspection and the identifier for those increments that passed the CDF inspection.	A5 A51 A513 A54 A541
CDF/PDF Processing Designation	(Cargo Deployment Facility/ Personnel Processing Function Processing Designation) A designation given to each increment and deploying individual indicating whether they are to move directly from the unit to the aircraft or to a work center.	A5 A51
Certification Documents	(Certification Documents) The records accompanying the hazardous materials planned for loading into an aircraft. These documents certify the designated aircraft has been approved to transport the material.	A541
Certification Requirement Checklist	(Certification Requirement Checklist) The list of items that must be included and completed within the Certification Docs.	A541
Chalk Content by Unit	The correlation between the items in the increment and the unit owning the item.	A24 A242
Cmdr Selection Criteria	(Commander Selection Criteria) The parameters used to check the ranks and roles of personnel assigned to a chalk to identify the best candidate for troop commander.	A242
COA	(Course of Action) This information is contained in the Battle Staff Special Instructions and specifies critical base dependent information for the deployment effort. This includes the actual facilities to be used to accomplish the deployment, the changes to the normal operations of the deploying base, the definition of the threat level and the security passwords to be considered and used during the deployment.	A0 A2 A25 A251
Completion Status & Personnel Movement Requirements	(Completion Status and Personnel Movement Requirements) The level of completeness for the current deployment effort. The definition for how many individuals need to be transported from one location on the base to another and at what time.	A51
Confirmed Loading	A status obtained during the deployment process stating that all the personnel and increments for a chalk are loading into the transporting aircraft.	A55
Consultation Requirement	(Consultation Requirement) The stated need that a deploying individual wants to meet with a Chaplain or other support functions prior to leaving on the deployment.	A53 A535
Consulted Person	A deploying person who has all of his personal affairs in order and is ready to leave for the deployment.	A53 A535
Consulting Materials	The various forms and brochures needed within the consulting-oriented workstations within the PDF.	A53 A535
Contracted Conveyances	External transportation sources brought onto the deploying base to support the deployment operation.	A4
Current Personnel & Equipment Information	(Current Personnel & Equipment Information) Information describing the status of personnel and equipment with respect to status needed to satisfy deployment requirements.	A241

Name	Definition	Reference
Current Resource Information	(Current Resource Information) The information describing the status of personnel and equipment at the time a selection for deployment is to be made.	A24 A241 A242
DD Form 93	(Department of Defense Form 93, Emergency Data Card) Blanks forms which emergency data can be recorded.	A535
Deliberate Tasking Plan	This tasking is documented in the Operations Plan (OPLAN) and is specific for each selected site and mission scenario. This plan is developed by the Wing Planners and specifies the overall requirements in terms of the unit to be deployed, the mission for each unit, and the order of deployment. The OPLAN comprises a Time-Phased Force Deployment Document (TPFDD) and Time-Phased Force Deployment List (TPFDL).	A-1
Deployability Maintenance & Record Requirements	(Deployability Maintenance and Record Requirements) For equipment, the listing of the maintenance performed and the list of scheduled maintenance requirements for the equipment. For personnel, the listing of shot and training records, including the list of those scheduled and required.	A24 A241
Deployability Maintenance and Selection Criteria	The standards used to evaluate the current maintenance and readiness status of personnel and equipment, and to determine if their status eliminates, or puts at low priority, their potential for satisfying a deployment requirement.	A2 A24
Deployability Maintenance Requirements	(Deployability Maintenance Requirements) The maintenance and shot administration actions that must be performed on equipment and personnel respectively to prepare them for the planned deployment.	A241
Deployability Selection Criteria	The parameters used to select the specific item from a list of possible candidates to fill the deployment requirement.	A24 A242
Deployed Increment and Personnel	The groupings of cargo and personnel that have been placed on the transporting aircraft.	A55
Deployed Resources and Manifest	Cargo and equipment aboard a conveyance deployed from the home base.	A-0 A-1 A0 A5 A55
Deployed Resources for Similar Deployment	Used as a reference for the current deployment planning, this listing of deployed resources identifies those resources deployed on a previous, similar deployment.	A2154
Deploying & Support Resource Information	(Deploying & Support Resource Information) Information about the base level resources used as the basis for evaluating and selecting the resources either to be deployed or to support the performance of the deployment operation.	A0 A2

Name	Definition	Reference
Deploying Resource Information	Information about the base level personnel and cargo that are identified or eligible for deployment.	A2 A21 A214 A24 A241
Deploying Unit Overlaps	The list of items common among two or more UTCs being deployed to the same location during the same time period.	A211
Deploying Unit Schedules	The deployment processing schedules and requirements for all units involved in a deployment to the same reception site.	A211
Deployment Destination and Mission Requirement	(Deployment Destination and Mission Requirement) The identification as to where a deploying unit is going and the mission to be performed by that unit.	A215 A2154
Deployment History	A history of what resources was used during similar previous deployments. It provides significant insight for determining realistic resources.	A21 A215 A2154
Deployment Order	The prioritized list of personnel and cargo for a deployment.	A212
Deployment Plan	The current use of facilities, such as buildings, located on the base to which a deployment assignment has been made	A-0 A-1
Deployment Processing Requirements	(Deployment Processing Requirements) The individual processing steps that specific personnel and equipment must perform to complete their deployment processing.	A2 A24 A25 A251
Deployment Ready Increments and Personnel	The increments and personnel assigned to a chalk and ready for deployment.	A55
Deployment Ready Resources	Deploying resources placed at the aircraft and ready for loading into the transporting aircraft.	A5 A55
Deployment Schedule	The schedule and requirements of units, which have some amount of common time at the same location.	A21 A211
Deployment Specifications	A complete set of requirements that must be satisfied to successfully accomplish a planned deployment.	A0 A2
Deployment Standards	The information used to judge when the increment layout, chalks, and load plan are correctly defined so that the actual deployment processing can begin.	A23

Name	Definition	Reference
Deployment Status	An update on the current state of the conveyance to deploy the resources, the transportation requirements to move the resources among the base to prepare for deployment, any personnel or cargo changes or shortfalls, the work centers' status, when the resources are ready to be processed through the work centers, when the resources are ready to be loaded on the conveyance, and when the conveyance is ready to leave the base with the deploying resources.	A0 A5 A51 A53 A535 A54 A55
Deployment Type	A coding of a deployment so as to provide a pointer into a history database of previous deployments.	A2154
Designated Location	The places at which the various work centers required to accomplish the deployment are designated to be positioned.	A3
Destination	The location to which the deploying resources are going.	A242
Destination Climate	The weather conditions at the reception site.	A215
Documentation Format	The approved presentation of information contained in the chalk manifest.	A55
Documented Increment	The electronic recording of the items contained in an increment.	A513 A5133
DSOE	(Deployment Schedule of Events) A prioritized set of actions developed by the IDO that must be performed and completed in accordance with the dates and times specified in the SOE. The dates and times specified are defined as "no later than" dates and times.	A5
DSOE & Communications	(Deployment Schedule of Events and Communications) The DSOE defines and controls the sequencing of tasks required to complete the Wing/Base level deployment effort. The communications represent the transfer of deployment status information relative to the DSOE.	A2 A25
DSOE, Communications, & Level Support Requirements	(Deployment Schedule of Events, Communications, and Level of Support Requirements) The processing schedule that guides the performance timeline of the base level deployment effort. Communications represent the information flow to the augmentees identified to setup and operate the various work centers contained within the deployment process. Level of Support Requirements represents the amount of deployment activities anticipated at each work center during the performance of the deployment.	A0 A3 A31

Name	Definition	Reference
DSOE, Communications, Manifest, etc.	(Deployment Schedule of Events, Communications, Manifest, Troop Commander, Processing Requirements, Increment Layout and Load Plan) The DSOE defines and controls the sequencing of tasks required to complete the Wing/Base level deployment effort. The communications represent the transfer of deployment status information relative to the DSOE. The manifest identifies all the personnel and increments assigned to a chalk. The Troop Commander identifies the individual in charge of the chalk's personnel from the loading preparation of the personnel until those personnel reach their respective units at the reception site. The processing requirements identify the deployment processing steps required for each individual and increment included in the deployment. The increment layout specifies the build up of items into a transport-ready increment. The load plan specifies the build up of increments and personnel into a transport-ready aircraft.	A0 A5
Duration Driven Requirements	(Duration Driven Requirements) The selection of deploying resources based on how long the unit anticipates being stationed at the reception site and the supply capabilities at the reception site.	A215
Emergency Information Update	(Emergency Information Update) Pertinent information that the individual being deployed revalidates and supplies current information necessary in the case of an emergency. This includes next of kin, points of contact, insurance information etc.	A535
Environmental Driven Requirements	(Environmental Driven Requirements) The deployment requirements that exist because of the terrain, weather, and location of the reception site.	A215
Finance Changed Requirement	(Finance Changed Requirement) A need identified by a deploying individual that the person must process through the finance station within the PDF.	A245
Finance Status	The guidelines used to determine when a check of a persons financial arrangements must be made.	A245
Financial Arrangements	Information designating how a deploying individual's paycheck and bills are to be handled while being deployed.	A535
Financial Info Update	(Financial Information Update) The list of financial changes that the individual being deployed wishes to make.	A535
Financial Materials	Forms that can be filled out by the individual being deployed to change various aspects of the financial situation, such as a financial institution automatic deposit.	A535
Fragmented Annotated List	(Fragmented Annotated List) A UTC designated for deployment but annotated to show it does not require all the personnel and items designated in the standard UTC, and the list of personnel and equipment needed to satisfy the partial capability.	A212
Frustrated Cargo Status	A list of TCNs indicating which cargo elements did not pass the incheck process and are in need of additional repair.	A54 A541
HazMat Codes & Documentation Standards	(Hazardous Material Codes and Documentation Standards) The guidelines for the various types of hazardous material and the associated codes, along with the guidelines for documentation required with each type of hazardous material	A5133

Name	Definition	Reference
HazMat Documented Increment	(Hazardous Material Documented Increment) An increment containing hazardous materials and the necessary approvals for transporting the hazardous materials.	A541
HazMat Items	(Hazardous Material Items) A list of material items classified as hazardous, thus requiring special processing and handling during deployment.	A24 A244
HazMat Placement Checklist	(Hazardous Material Placement Checklist) The rules, which dictate how the various hazardous materials must be packed individually and how, they must be packed with respect to one another.	A541
Hot Spots & Mission Requirements	(Hot Spots and Mission Requirements) The points throughout the world at which situations exists that may require the future need to deploy resources to that site and a general definition for the type of mission that will have to be performed to address the situation.	A-1
ID Card	(Identification Card) A card that contains personal information and data of a person identified to be deployed.	A53
ID Card Requirement	(Identification Card Requirement) A requirement to replace an ID card or dog tags, because an individual is missing or possesses a damaged set of dog tags or ID card.	A53
Identified Incremented	An increment on which has been placed a unique identifier and the necessary technology to identify the items contained within the increment.	A513
Incheck Requirements Summary	(Incheck Requirements: Summary) A completed listing for all the increments requiring in-check processing during a deployment.	A24 A244
Increment & Personnel Information	(Increment and Personnel Information) The information updated during the deployment process for those resources selected and prepared for deployment.	A55
Increment & Unit IDs	(Increment and Unit Identifiers) The unique identifier for an increment along with the identifier for the owning unit for the increment.	A513
Increment Buildup	An increment with the specified items placed, as they should be to ensure it for safe transport.	A5131
Increment CDF Processing Requirements	(Increment Cargo Deployment Function Processing Requirements) A listing of those increments identified to be processed through the CDF along with an indication as to why each increment was selected for the CDF check.	A51
Increment Chalk Adjustments	A requested adjustment to an increment or chalk layout due to a problem encountered during the deployment.	A2 A23
Increment HazMat List	(Increment Hazardous Materials List) A list of the hazardous material contained within a specific increment.	A5133
Increment ID	(Increment Identifier) They TCN for an increment and used to relate between the physical increment and the list of increments included in the chalk.	A51 A54
Increment Layout	Provides guidelines for visually inspecting the packing of the total increment and illustrates the placement that satisfies all the packing standards of all the items on the increment.	A2 A23 A513 A5131 A541

Name	Definition	Reference
Increment Layout & Load Plan	The buildup design for an increment and the buildup design for the increments inside the transporting aircraft.	A51 A513
Increment List	A list of the contents of the increment, which provides a manifest for the increment.	A513 A5133
Increment Manifest	The list of items included in the increment.	A5133
Increment Measurement	Provides increment size information needed to develop the load plan for presentation to the Load Master.	A5132
Increment Measurement Guidelines	The rules for determining the increment's physical characteristics that is important to assure its safe transport.	A513 A5132
Increment Movement Rqmt	(Increment Movement Requirement) The need to move an increment from one location to another at a given time and with a specified equipment.	A51
Increment Requiring Buildup Check	Those increments, identified during the deployment planning, that will be processed through the CDF.	A513 A244
Increment Requiring HazMat Check	(Increment Requiring Hazardous Materials Check) An increment identified as containing hazardous materials and thus needing processing through the CDF.	A244
Increment Requiring Mixed Cargo Check	The identification of those increments built up with items from multiple units and requiring processing through the CDF.	A244
Initial Prep Time	(Initial Preparation Time) The standard preparation time designated as needed to prepare a standard increment.	A251
Initiate Cargo Processing Time	The time defined in the DSOE at which a unit is to begin processing its cargo for deployment.	A251
Initiate Movement Time	The time defined in the DSOE at which a unit is to begin moving its cargo from the unit location to the transporting aircraft.	A251
Initiate Personnel Processing Time	The time defined in the DSOE at which a unit is to begin processing its personnel for deployment.	A251
In-Place Equip	(In-Place Equipment) A work center that is set up with the supporting equipment.	A3
Inspection Checklist	A list of the increment parameters the Incheck personnel will consider when determining if an increment is ready for placement into the marshalling area.	A54 A541
Inspection Requirements	(Inspection Requirements) The list of inspections required for an increment as it is processed for deployment.	A513
Integrated Layout of Chalk DSOEs	(Integrated Layout of Chalk Deployment Schedules of Events) The completed DSOE, which defines, and controls the sequencing of tasks for all increments required to complete the Wing/Base level deployment effort.	A25
Inter Base Common Resources	A list of items, common among multiple bases, and identified for deployment to the same reception site	A214
Intra Base Common Resources	A listing of resources common among the Tucks being deployed from a single base.	A214
Invalid Certifications	Hazardous Materials documents improperly prepared.	A541

Name	Definition	Reference
Item List	The identifier of items contained in the manifest.	A244
Item to Unit Correlation	The designation of common resources to a specific unit and the responsibility of the unit to deploy the resources to the reception site for sharing with another unit.	A214
Legal Document Requirement	(Legal Document Requirement) The need for a deploying individual to complete a will or a Power of Attorney, or both at the PDF.	A245
Legal Info Update	(Legal Information Update) Information an individual would like to put in a Will and the person to be assigned the Power of Attorney.	A535
Legal Status	A requirement by the individual to have the legal documents reviewed.	A245
Level of Processing Support	The quantity of processing anticipated for each deployment work center.	A3
LIMFACS & Shortfalls	(Limiting Factors and Shortfalls) A factor in a mission that, either temporarily or permanently, impedes a mission. Examples: transportation network; lack of in-place facilities; malpositioned forces or materiel; extreme climatic conditions, distance, transit or overflight rights; and political conditions. Shortfall-A lack of forces, equipment, personnel, materiel, or capability, apportioned to and identified as a plan requirement, that adversely affects the command's ability to accomplish its mission.	A-1 A-0 A0 A2 A24
Load Master Approved Load Plan	The load plan for a chalk that has been reviewed by and approved by the Load Master. This approval allows for the aircraft loading to begin.	A55
Load Plan	The layout for the positioning of the personnel and increments in the transporting aircraft with respect to factors such as weight distribution and hazardous material placement.	A51 A513 A5132 A54 A541
Load Plan Identifiers	The unique identifiers that link an increment to the chalk.	A513
Load Plan Increment Layout	The arrangement defined for positioning the increments of a chalk into the designated aircraft to ensure flight safety. Also the arrangement of items within an increment.	A5 A54 A541 A55
Load Planning Standards	The guidelines or business rules for how to safely position personnel and cargo increments in a transporting aircraft.	A23
Loaded Increment	A rolling stock or grouping of items on a pallet or in a cargo box packaged and prepared at the unit.	A513 A5131 A5132
Local Transport	The means that exists on a base to move deploying personnel and cargo during the time of a deployment.	A0 A4
Local Transport Provided	The means of transportation provided in response to a planned transportation need.	A4

Name	Definition	Reference
Location	The usual location designated in the base deployment plan for each work center.	A3
LOI	(Letter of Instruction) Deployment instructions that are specifically related to the mission to be accomplished at the reception site.	A212 A242
LOI UTC ID & Deployment Order	(Letter of Instruction, Unit Type Code Identifier and Deployment Order) The letter of instruction augments the tasking to include requirements specific to this deployment. The identifier of the unit responsible for some of the deployment requirements. The Deployment Order triggers the official start of the deployment.	A21 A212
LOI UTC ID Fragmented Information	(Letter of Instruction, Unit Type Code Identifier, Fragmented Information) Deployment instructions that are specifically related to the mission to be accomplished at the reception site. The identifier of the unit responsible for some of the deployment requirements. Information that signifies whether or not the deployment requires the full UTC or just a portion of the UTC defined items.	A212
LOI, Schedule & Destination	(Letter of Instruction, Schedule, and Destination) A part of the deployment tasking. The LOI expands and refines the requirements for the deployment beyond that contained in the TPFDD. The schedule specifies when the deploying resources are to arrive at the destination and the destination names the destination point.	A2 A24 A242
Manifest	The official listing of the cargo elements and personnel placed into the transporting aircraft.	A24 A244 A55
Manifest & Shortfalls	The list of personnel and increments placed on the transporting aircraft and the list of those personnel and items that could not be provided by the tasked unit.	A242
Manifest Recording Requirements	(Manifest Recording Requirements) The guidelines for developing and presenting the final manifest of personnel and cargo loaded onto the transporting aircraft.	A5133
Manifest, Shortfalls, & Troop Cmdr	(Manifest, Shortfalls, and Troop Commander) The manifest is a list of personnel and items included in a chalk. The shortfalls are a list of personnel and items assigned to a unit for deployment but cannot be provided by the unit. The troop commander is the person responsible for all the personnel in the chalk from base departure until their reaching their units at the reception site.	A2 A24 A242
Master HazMat Item List	(Master Hazardous Materials Item List) The total list of hazardous material within a base and the codes & handling requirements associated to each item.	A5133
Measured Increment	An increment ready of consideration for inclusion into the marshalling area. The consideration will indicate how well the increment meets the aircraft load limitations.	A54
Measurement Procedure	The techniques designated to accurately measure the size of an increment.	A5132
Measurement Procedures	The techniques designated to accurately measure the size of an increment.	A54
Medically Prepared Individual	An individual processing for deployment who has all the medical shots required for the deployment.	A53 A535
Medications	The supply of shots required for the deployment and available for administering as necessary to the personnel being deployed.	A53

Name	Definition	Reference
Mission Shortages or Overages	Items and personnel designated in the deployment tasking that either cannot be provided by the tasked unit or are not needed to be deployed to the reception site.	A21 A214
Mobility Bag Requirement	(Mobility Bag Requirement) The specified need for deploying personnel to take along one or more of their mobility bags.	A53
Mobility Bags	The standard bags being carried by a deploying individual upon arrival at the PDF.	A53
Name of Selected Authorization Person	The identification of the person selected to sign the hazardous material documentation.	A5133
Net Resource Deployment Requirements	(Net Resource Deployment Requirements) The list of personnel and equipment to be deployed after coordination with those available at the reception site.	A214
New Tag Requirement	(New Tag Requirement) The realization that a deploying individual requires a new dog tag.	A245
Next of Kin Insurance Beneficiary Information and Delivery Information	(Next of Kin, Insurance Beneficiary Information, and Delivery Information) The emergency information designated by an individual being deployed. Also, the instructions for where the information should be provided.	A535
Non-HazMat Increment	(Non-Hazardous Materials Increment) An increment containing no hazardous materials.	A244
Non-Rolling Stock Increment	An increment consisting of more than one item, usually packaged into a pallet.	A5132
Non-Unit Mixed Increments	An increment whose included items all belong to the same unit and to the same UTC.	A244
NSN	(National Stock Number) The unique identifier for a material item.	A22
Number for Incheck	The number of increments, identified during the deployment planning, for processing through the CDF.	A251
Number of Personnel/ Station	The number of persons, identified during the deployment planning, for processing through each station in the PDF.	A251
Number, Schedule & Skills for Augmentees	Information related to the augmentees selected to support the deployment. This information includes the number of each skill required and the time period at which each individual is to arrive and perform the duties.	A31
Off-Base Transport Capabilities	The conveyances not associated with the deploying base assigned to move deploying personnel and cargo among sites or to the reception site.	A4
Old ID Card	(Old Identification Card) A personnel identification card that must be replaced before the person's deployment process can be completed.	A53
On-Base Transport Availability	The various conveyances located in and accountable to the deploying base available to support the deployment.	A4
On-Base Transport Capabilities	The various conveyances available within the deploying base.	A4
On-Site Unit Schedule	The time period during which a unit will be located at a deployed site.	A211
Operation Driven Requirements	(Operation Driven Requirements) Deployment requirements based on the type of mission assigned to the deploying unit.	A215 A2154

Name	Definition	Reference
Operations Ready Resources	Deployed personnel and equipment positioned at the reception site and ready to begin their assigned mission.	A-1 A-2
Optimal Chalk Level DSOE	(Optimal Chalk Level Deployment Schedule of Events) The final Wing/Base level deployment schedule developed to the chalk level of detail.	A25 A251
Overlap Selection Criteria	The length of time that one or more units must share at the reception site before their deployed resources can be considered for possible sharing.	A21 A211
Overlay Condition For Consideration	The set of units determined to have sufficient common time at the reception site so that their resources can be considered for sharing.	A211
Oversized Equipment	(Oversized Equipment) An item requiring the use of a specific type of aircraft for its movement during a deployment.	A22
Package Approved Increment	An increment determined to be packaged correctly for safe transport.	A541
Package Unapproved Increment	An increment judged not to be prepared in accordance with the pallet packing standards.	A541
Packing Accepted Increment	An increment judged acceptable based on fact that the increment was prepared in accordance with the packing standards. The increment is ready for final measurements.	A54 A541
Packing Checklist	A summarized list of the pallet packing standards to help ensure all portions of the standards are considered.	A541
Pallet Packing Standards	The rules established to build a cargo increment so that it can be transported safely in an aircraft.	A23
Palletized Mobility Bags	The packing of the mobility bags for the personnel for one chalk into one or more pallets.	A53
Partial Increment List	A list of items contained in an increment but do not completely fill the weight/space for the increment.	A23
PAX Loading Record & Annotated Load Plan	(Passenger Loading Record and Annotated Load Plan) The personnel loaded onto an aircraft and the list of their names and information relating to them. The load plan annotated to denote each increment was loaded onto the chalk.	A55
PDF Departure Time	(Personnel Deployment Function Departure Time) The time that the individuals for a chalk will be moved as a group to the transporting aircraft.	A5 A53
PDF Materials	(Personnel Deployment Function Materials) The blank forms and tags filled out as an individual processes through the PDF.	A5 A53
PDF Processing Requirements	(Personnel Deployment Function Processing Requirements) The stations within the PDF that a specific deploying individual will have to take as defined during the deployment planning.	A24 A245
Personal Bags		
Personnel & Equip Manifest	(Personnel and Equipment Manifest) The name of each individual and item loaded into the transporting aircraft along with the number of each item.	A51
Personnel and Cargo Id & Placement	(Personnel and Cargo Identification & Placement) The defined placement of the personnel and cargo in the transporting aircraft.	A55
Personnel Contact Reference	The means of contacting the individual selected to sign the hazardous material shippers document.	A5133

Name	Definition	Reference
Personnel Manifest	The list of names of personnel to be loaded into the transporting aircraft.	A242
Personnel Manifest & PDF Processing Requirements	(Personnel Manifest and Personnel Deployment Function Processing Requirements) The names of the individuals contained in a chalk. The specific processing steps an individual must go through before deployment processing is complete.	A5 A51 A53
Personnel Manifest & Processing Requirements Increment Layout Load Plan	(Personnel Manifest and Processing Requirements, Increment Layout, Load Plan) The names of the individuals contained in a chalk. The specific processing steps an individual must go through before deployment processing is complete. The build up design for an increment and the build up design for the increments inside the transporting aircraft.	A5 A51
Personnel Rank Listing	The military rank possessed by each deploying individual.	A242
Personnel Tag	The indicator that an individual's personnel tag must be checked and updated as part of preparing the person for deployment.	A245
Placard Procedures	The manner in which an increment must be denoted to effectively relay the increment related information throughout the deployment and transportation process.	A54
Planned to Actual DSOE	(Planned to Actual Deployment Schedule of Events) The difference between the planned deployment status at a point in time and the actual status of the deployment.	A25
Preparation Status	(Preparation Status) A list of processing actions needed for the designated resources to complete the deployment process.	A24 A245
Preparation Status/Type	(Preparation Status/Type) The preparation status for a specific type of resource.	A24 A241 A244
Preparation Checklist	A list of issues that must be addressed to ensure the complete deployability status for resources.	A242
Preparation Standards	The levels of operational capability that must be achieved to successfully complete the deployment process.	A0 A5 A51 A513 A5131 A5133 A55
Previous Deployment List	The list of personnel and cargo items taken on a previous deployment that is similar to the current deployment conditions.	A2154
Private Discussion Requested	A request by a deploying individual to have a one-on-one meeting with a chaplain before leaving on the deployment.	A245
Private Discussion Requirement	(Private Discussion Requirement) The need for the deploying individual to meet with the Chaplain at the PDF.	A245

Name	Definition	Reference
Processing Personal & Mobility Bags	The individuals going through the deployment process and the equipment (chemical bag, etc.) specified for each to take for the deployment. These personnel and equipment have been transported to the PDF.	A5 A53
Processing Requirements	(Processing Requirements) Those steps of the deployment process that must be performed to accomplish the current deployment. For example, the number of the cargo increment required for processing through the CDF.	A51
Processing Standards	The criteria used to develop the production schedule for individual chalks.	A25 A251
Processing Status	A collecting of information that defines the current level of completion for a deployment.	A25
Projected Deficiency	A shortfall identified during the planning of the on-base transportation requirements.	A4
Proposed Airlift Requirements	(Proposed Airlift Requirements) These requirements identify the type and number of transporting aircraft needed to move the resources from the Wing/Base.	A22
Proposed Assignment	The mapping of specific conveyances to fill the transportation requirements as performed by the Decision Support System.	A4
Proposed Augmentee Fill List with Substitutes	The list of individuals assigned to perform each of the deployment support tasks, and a secondary individual for each support task in case the primary person cannot perform the task for whatever reason.	A31
Proposed Conveyance Assignment Schedule	Developed by the Decision Support System, this schedule details the assignment of conveyances to satisfy the on-base transportation requirements of the deployment.	A4
Proposed Increment Layout, Chalks, & Load Plan	The increment layout is a three-dimensional item buildup for an increment, the association of increments to a chalk, and the arrangement of the increments within the transporting aircraft.	A23
Proposed or Final Integrated DSOEs	(Proposed/ Final Integrated Deployment Schedules of Events) The schedule developed to guide and control the Wing/Level deployment effort such that it ensures the effective, coordinated preparations of all units.	A25
Proposed Personnel or Equipment	(Proposed Personnel/ Equipment) The list of unit personnel and equipment selected by the Decision Support System to satisfy the unit's assigned deployment requirements.	A24
Proposed Unit Deploying List	The listing of individuals and equipment identified as needed by the unit to satisfy its assigned deployment requirements. This list has been tailored by previous deployment experience.	A215 A2154
Qualifications Criteria	The business rules established to select the personnel and equipment needed to satisfy deploying requirements.	A242
Qualified Resource	An individual or equipment that meets the requirements for the planned deployment.	A242
Readiness Status	The current ability for a unit to satisfy a UTC capability.	A2 A21 A214
Recall Procedures	The steps taken to notify an individual of his selection to act as an augmentee for a deployment effort.	A31

Name	Definition	Reference
Rejected Increment	An increment determined to have something sufficiently wrong to prevent it from being loaded into the transporting aircraft.	A51 A513 A5131 A5132
Rejected Item ID	(Rejected Item Identifier) The identifier of the specific cargo item with something wrong so as to be unable to be loaded on an aircraft.	A51
Rejection Cause	The reason an equipment item was not selected to be a part of the deployment.	A5131
Religious Materials	A set of religious materials that can be provided to a person being deployed.	A535
Religious Materials & Support	Religious materials that are taken by the individual being deployed.	A535
Remaining Available Chalk Space	Positions into which personnel and equipment can be placed to fill the assigned transporting aircraft.	A23
Reporting Augmentees	The individuals selected to support the deployment and who are arriving at their assigned work center.	A3
Reporting Guidelines	The business rules specifying when a report is to be sent to the DCC to updated status of the deployment progress.	A541
Reports	Documents stating the status of the deployment effort.	A-2 A-1
Requested Airlift	The type and number of aircraft deemed necessary by the Wing/Base to move the deploying resources from the base.	A2 A22 A23
Requested Deployment Resources By Unit	The complete list of resource requirements tasked to a unit.	A212
Resource Availability	The availability and scheduled commitments of resources eligible for deployment.	A242
Resource Change Rqmt	(Resource Change Requirement) Personnel or cargo changes or shortfalls that must be resolved during the deployment.	A2 A24
Resource Deployment History	The listing of when, where, and how long a specific resource has been on deployments.	A242
Resource Preparation Records	(Resource Preparation Records) The listing of information reviewed by the Troop Commander to ensure that all chalk personnel completed the necessary preparation steps.	A242
Resource Qualifications	The qualifications of personnel and equipment that is directly applicable to determining their deployability.	A242
Resource Requirements	(Resource Requirements) The list of all personnel and equipment designated to satisfy the mission requirements.	A21
Responsibility Assignment	The unit having the responsibility to prepare and process an increment. This is especially important when the increment comprises items from multiple units.	A23

Name	Definition	Reference
Responsibility Assignment Standard	The business rules that define which unit are selected as responsible when an increment comprises items from multiple units.	A23
Responsible Unit & Chalk Contents	A list of increments and items contained in a chalk and the one or more units owning those items and increments.	A2 A23 A24 A25 A251
Responsible Unit	The unit identified to build and ensure the increment arrives at the transporting aircraft in accordance with the DSOE.	A244
Rolling Stock Increment	An increment, usually consisting of one item that is not placed on a pallet for deployment.	A5132
Rolling Stock with CoB Information	(Rolling Stock With Center of Balance Information) A rolling stock increment, which has the center of balance information, attached.	A5132
Schedule	The timeline developed to guide and control a deployment effort at the Wing/Base level.	A242
Schedule Adjustments	The changes made to proposed schedule produced by the Decision Support System.	A4
Selected Cargo Increment	The increment selected to be included as part of a chalk.	A24 A244
Selected HazMat Controller	(Selected Hazardous Materials Controller) The authorized individual selected to sign the shipper's document for a hazardous material.	A5133
Selected Personnel	The individual selected to fill a personnel deployment requirement.	A24 A245
Selected Resource	The resource (personnel, cargo item, or equipment) selected to fill a tasked deployment requirement.	A242
Selected Unit Overlap Times	The designated time periods at a reception site that is common among the units deploying to that reception site.	A21 A211 A214
Selection Adjustment	User changes made to the list of resources selected to satisfy deployment requirements.	A24 A242
Selection Changes	Adjustments made to the proposed augmentee list based on information known to the person responsible for establishing the list.	A31
Service Center Materials	The blank forms, dog tags, and associated materials used to process deploying resources.	A0 A5 A51
Setup Status	The current readiness of the deployment capability at a wing/base.	A0 A3

Name	Definition	Reference
Shippers Document	(Shippers Document) The document that must be signed before a hazardous material can be transported by an organization and on any aircraft type.	A5133
Shot Record	An up to date listing of the person's medical shots.	A245
Shot Requirement	(Shot Requirement) The list of medical shots required before an individual can deploy to the designated reception site.	A245 A53
Signed Shippers Document	(Signed Shippers Document) The official approval that a hazardous material can be transported by a specific organization and on a specific aircraft type.	A5133
Site Survey & Deployment History Information	(Site Survey & Deployment History Information) A grouping of information used to facilitate the tailoring of resources for a deployment. The information includes resource and capabilities information about the reception site and the usage results from previous deployments for similar missions and reception sites.	A-0 A-1 A0 A2 A21
Site Survey Information	(Site Survey Information) Information regarding the capabilities of the reception site used to tailor a UTC.	A21
Site Survey Request	A request to identify the resources existing at the reception site that can support the deploying resources arrival at the reception site or the performance of the mission from the reception site.	A-1
Skills & Support Magnitude	The level of training necessary to prepare an augmentee for the deployment effort and the level of work anticipated for the augmentee.	A3
Specific Deployment Requirement	(Specific Deployment Requirement) The deployment tasking to a defined point in the world.	A-1
Specific Shot Records	The listing of medical shots required for the current deployment.	A24 A245
Standard In-Check Time	The time used to estimate the time required to process an increment through the CDF.	A251
Standard Increment Contents	A defined list of equipment and supplies normally grouped into an increment and defined within the standard UTC definition.	A23
Standard Item Sizes With Special Need Designations	The predefined dimensions for each deployable item and increment, along with designations for any restrictions or special requirements for its transport.	A22
Standard Item Weights	The recorded weight for each item designated for deployment.	A22
Standard Loading Time	The predefined time for loading each increment into a specific aircraft type.	A251
Standard Preparation Time	(Standard Preparation Time) The time defined for preparing the contents of a standard UTC for deployment.	A251
Standard Station Time	The time, used for planning purposes that a deploying individual requires at each workstation within the PDF.	A251
Standard Unit to Aircraft Movement Time	The time, used for planning purposes, required to move a cargo increment from the preparing unit to the aircraft into which it will be loaded.	A251

Name	Definition	Reference
Standard UTC Contents	(Standard Unit Type Code Contents) The number and type of personnel and cargo referenced through the identification of a UTC.	A21 A212
Standard UTC Data	(Standard Unit Type Code Data) All the data that fully defines a standard UTC.	A-1
Standard UTC Pallets	(Standard Unit Type Code Pallets) The definition for each pallet designed to carry the cargo item listed in a standard UTC. These standard pallets are uniquely identified within a UTC along with the specific items to be placed on the pallet and the building structure for the pallet.	A23
Standards	A list of conditions, quantities, and values that form the foundation for estimating all aspects of a deployment.	A-0 A-1 A-2 A0 A2 A21 A215 A23 A25
Status Update	A call-in to the DCC regarding the status of various aspects of the deployment process, such as the current readiness capability of the Wing/Base, the requested transportation, the work centers operations, personnel and/or cargo changes or shortfalls, the conveyance status, etc.	A0 A2 A25
STONS	(Short Tons) The weight of the resources (personnel and cargo) planned for deployment from a Wing/Base.	A22
Support Resource Information	(Support Resource Information) The availability of the personnel and equipment needed to perform the deployment.	A2 A25
Support Resource Usage Standards	The number and type of personnel and equipment used to perform a defined level of deployment.	A25
Support Standard	A predefined list of equipment and augmentees for supporting a baseline deployment level.	A0 A3 A31
Tailored AFSC List	(Tailored Air Force Specialty Code List) The list of AFSCs defined in a standard UTC adjusted to satisfy the requirements for a deployment tasking.	A2 A24 A242
Taskings	The deployment assignment provided to the Wing/Base/Unit identifying the deployment requirements.	A-0 A-1 A0 A2 A21

Name	Definition	Reference
Total List of Requested Deployment Resources	An itemized list of personnel requirements and cargo item requirements identified through the UTCs listed in the deployment tasking.	A21 A212 A214
Transport Assignment Status	The anticipated availability of local transports to satisfy base transportation requests and the notification of the assignment of a specific transport to a request.	A0 A4
Transport Equipment Requirement	(Transport Equipment Requirement) The amount and type of vehicles anticipated to move the personnel and cargo on base throughout the deployment timeframe.	A4
Transport Points & Requirements	(Transport Point Requirements) The locations on the base that will be sources and destinations between which transporting capabilities will have to move deploying resources.	A0 A4
Transport Ready Increment	An increment judged to be correctly prepared and safe to be loaded into the transporting aircraft.	A54
Transport Ready Person	Deploying personnel who completed the deployment processing and are ready for transport from their holding area to the transporting aircraft.	A53
Transport Ready Resources	Increments and personnel judged to be correctly prepared and available for loading into the transporting conveyance.	A5 A51 A53 A54
Transport Request	A request presented to base transportation for the movement of cargo or personnel from one place to another. This request is given in terms of the source and destination; type, quantity, specific characteristics of the resources to be moved; and the time at which the move must be completed.	A0 A4 A5 A51 A53
Transport Requirement	(Transport Requirement) A definition for the resources that must be transported between points and at specific times.	A4
Transport Schedule Ready Status	Verification that the required transportation will be available as requested.	A4
Transporting Time & Points	The definition of the path that unit prepared personnel and increments will travel from the unit location to the transporting aircraft, along with planned times for waypoints along that path.	A4
Troop Cmdr	(Troop Commander) The individual assigned to a chalk and typically has the highest rank. As Troop Commander, this person takes full responsibility for all chalk personnel from the time of leaving the home base until arrival at the reception site.	A242
UDM Approved List	(Unit Deployment Manager Approval List) The list of deploying resources determined for the deployment.	A215
UDM Comments	(Unit Deployment Manager Comments) Reasons and logic provided by the UDMs and work centers for the variations between the DSOE defined planned activity times and the actual times.	A25

Name	Definition	Reference
Unacceptance Cause	The reason that an increment was determined unsafe to load into a transporting aircraft. This is usually referred to as a frustrated increment.	A5131
Unaccepted Cargo Increment	A cargo increment determined not to meet the inspection criteria, thus making the increment unsafe to load onto a conveyance.	A513 A5131
Unaccepted Increment & Justification	(Unaccepted Increment and Justification) The identification of an increment deemed unfit for loading onto the transporting aircraft and the reasons for the problems.	A541
Undocumented HazMat Items	(Undocumented Hazardous Material Items) HazMat items included in an increment for which the necessary transporting documentation has not been prepared.	A541
Unit Accepted Increment	One or a grouping of deploying items packaged such that the unit believes the grouping can be loading into the transporting aircraft and safely transported to the reception site.	A51 A513
Unit Completed Personnel	Personnel who are ready to depart from a base to satisfy a specific deployment requirement.	A51
Unit Deployable Resources	The personnel and equipment that have been selected to satisfy a deployment requirement.	A0 A5 A51
Unit Deploying Schedule	The timeline developed by each unit to guide their deployment preparation such that their deploying resources will be ready in the timeline defined in the DSOE.	A215
Unit Deploying Schedule, Destination, and Mission Requirement	(Unit Deploying Schedule, Destination, & Mission Requirement) The schedule defining the steps that a unit must accomplish to complete the deployment and the timeline during which the tasks must be performed. The place to which the deploying unit is heading and the mission the unit is assigned.	A21 A215
Unit Deployment History	The history of previous deployments by a unit and their successes and problems.	A24 A244
Unit Determined Properties	The dimensions, weight, and center of balance for an increment as determined by the preparing unit.	A513 A5132
Unit ID and Deploying Schedule Mission Requirement	(Unit Identifier and Deploying Schedule, Mission Requirement) The unique identifier for a deploying unit, the deployment preparation timeline for that unit, the operational assignment to the unit once the unit reaches the reception site, and the supply support capabilities at the reception site.	A215
Unit On-Site Schedules	The employment and redeployment schedules for each unit currently at the reception site.	A211
Unit Prepared Cargo Elements	The individual items identified for deployment and prepared to the point where there is a stand-alone increment or ready for integration into an increment.	A51 A513 A5131
Unit Processed Cargo	The increments developed by the assigned units, transported to the CDF, and ready to be processed.	A5 A54 A541

Name	Definition	Reference
Unit Status Reporting Requirements	(Unit Status Reporting Requirements) The points during the deployment at which tasks compilations are to be delivered to the controlling organization.	A241
Units Included	The identifiers of the units providing items to be included in one increment.	A244
Unit's Prioritized & Tailored AFSC & Materials List	(Unit's Prioritized & Tailored Air Force Specialty Code & Materials List) To satisfy a mission requirement, the list of resources identified to be deployed by the unit and sequenced in order of importance with respect to the order of their use at the reception site.	A2 A21 A215 A22 A23
User Adjustments	Changes to the products produced by the Decision Support System and based on information known by the user but not contained the Decision Support System rule base.	A212 A23
User Overlap Adjustment Parameter Value	Changes to the criteria used when determining the overlap of two or more units at a reception site that supports the possibility for those units to share resources.	A211
User Selected Previous Deployment	A referenced deployment used to build the details for a currently assigned deployment requirement.	A2154
UTC & Airlift Carrying Capacity Standards	(Unit Type Code and Airlift Carrying Capacity Standards) The UTC standards identify the specific type of resources contained in the definition of a UTC. The Airlift Carrying Capacity Standards define specific transporting capabilities of an aircraft type. These standards include such parameters as the maximum carrying volume, weight, item size, runway length, etc.	A2 A22
UTC Annotated List	(Unit Type Code Annotated List) The letter of instruction augments the tasking to include requirement specific to this deployment. The annotated list is the standard or fragmented UTC marked up to include the requirements from the Letter of Instruction, or any MAJCOM requested tailoring.	A212
UTC Content List	(Unit Type Code Content List) The list of personnel and equipment qualifications needed to provide a specific mission requirement.	A212
UTC Deployment Requirements Assigned To Unit	(Unit Type Code Deployment Requirements Assigned to Unit) The identifier for a mission capability provided to a unit, thus telling the unit what resources (personnel and equipment) they are to prepare for deployment and to actually deploy.	A21 A214 A215
UTC Fragmented ID	(Unit Type Code Fragmentation Identifier) An indicator within the deployment tasking that indicates a tasked UTC is for only a portion of the UTC capability rather than the full or standard UTC.	A212
UTC ID	(Unit Type Code Identifier) In the strict sense, this is equivalent to the name UTC. However, since the term UTC is used to represent the identifier for both a mission capability and the materials contents for that capability, the identifier is added here to distinctly identify a mission capability.	A212
Valid Certifications	The completed documents verifying that a hazardous material is approved to be transported as part of a chalk.	A541
Variation Limits	The point at which the difference between the planned and actual deployment schedules are set to trigger an adjustment to the performance of the process.	A25

Name	Definition	Reference
Verified Deploying Individual	An individual whose qualifications have been checked to ensure they satisfy the requirements for deployment.	A53
Verified Resource Information	(Verified Resource Information) Current maintenance and shot records for equipment and personnel eligible for deployment.	A241
Weighed Increment	A cargo increment that has been officially weighed on its way the transporting aircraft.	A5132
Weighing Procedure	The techniques used to accurately weigh a cargo increment.	A5132
Will, Power of Attorney, & Delivery Directions	A Will and/or Power of Attorney signed by a person being deployed and the instructions for who should receive copies of these documents and the addresses of these individuals.	A535
Work Center Completion Status	A deployment function that is fully equipped, has the supporting supplies, and is ready to do its part of the deployment process.	A3
Work Center Equipment	(Work Center Equipment) The typewriters, desks, chairs, etc. used to support the operation of a work center.	A3
Work Center Resources	The materials needed to prepare and support the deployment process.	A0 A3
Work Center Supplies	The materials needed to prepare and support the deployment process within the work centers.	A3
Work Centers	A specific site that has been set up and manned to perform a specific operation or step within the deployment process.	A0 A3
World Environment	The information received and evaluated to determine the requirements for actual and anticipated deployments.	A-2 A-1

LOG-AID TO-BE MECHANISM GLOSSARY

Role	Description
Airlift Computation Module	The software module relates the transportation needs of the deploying resources to the transporting capabilities of aircraft types.
Augmentee Control Module	The information system providing guidance to the augmentees as they proceed to set up the deployment work centers.
Augmentee Selection Module	A software module that tracks the capability and availability status of augmentees and, based on the status information, helps identify the specific augmentees needed to support a deployment effort.
Augmentee Training Module	The software system possessing two major capabilities. First, it tracks the training and skills level maintained by each augmentee. This training includes training received through classroom, exercise, and real-world deployment training. Second, it provides personalized, computerized training accessible within the work schedule of the individual.
Augmentees	Individuals assigned to support the performance of the deployment process but not selected to deploy.
Battle Staff	The commanding personnel at the Wing/Base-level responsible for specifying how the deployment process will proceed, the base facilities assigned, and who will be involved in the deployment.
Cargo Buildup Team	The group of individuals responsible for placing deploying items together into an increment such that it is safe to load and transport on the designated aircraft.
CDF Personnel	(Cargo Deployment Function Personnel) The augmentee individuals who position themselves in the CDF to verify the accuracy of each increment prior to loading.
Chaplain	A augmentee responsible for providing spiritual support to those individuals processing for deployment.
Cmdr Selection Tool	(Commander Selection Tool) A software module that evaluates the personnel assigned to each chalk and identifies, based on rank, the individual responsible for the chalk personnel from the time of leaving the deploying base until their arrival at the reception site.
Dedicate Aircraft K-Loader	Aircraft loading equipment placed against the loading door of the aircraft throughout the loading process and used to transfer increments from ground level to the aircraft loading level.
Deployment Control Module	An information system comprised of submodules that control the overall planning of the deployment effort.
Deployment Modules	The information system comprised of submodules that control the overall deployment execution.
Deployment Resource Module	The information system that selects a proposed list of items and personnel to fill the determined deployment requirements.
Deployment Requirements Module	(Deployment Requirements Module) The overriding module that supports the tailoring of UTCs to more effectively satisfies the deployment requirements.
DPViz	(Deployment Process Visibility Tool) An automated tool that compares, evaluates, and presents the current status of the deployment process to the planned process schedule.
DSOE Module	(Deployment Schedule of Events Module) The information system that collects and organizes the information necessary to develop an effective schedule for the base-level deployment process.

Role	Description
IDO	(Installation Deployment Officer) The base-level individual having primary responsibility for all deployment activities.
Increment Analysis Module	A software tool that matches items to be included in an increment.
Increment Buildup Module	The information system that computes and presents the suggested placement of items so as to form an efficient, safe pallets. Once approved, the module presents a 3-D picture of that design to the increment buildup team.
Increment Documentation Module	The software module that ensures all the necessary documentation, especially the hazardous materials documentation, is complete for a specific increment.
Increment Measurement Module	A combination of software and hardware that measures and records the size and weight of an increment.
Increment Module	That part of the passive status collection capability that records and tracks the buildup effectiveness of each increment.
Installation Commander Battlestaff	The group of Base-Level personnel responsible for providing overall guidance to the deployment and interfacing with the responsible MAJCOM.
Load Master	The individual assigned to a transporting aircraft and with the responsibility to ensure his aircraft is loaded correctly with increments prepared to meet all safety regulations.
Load Module	The information system that presents the aircraft load plan for final approval and guides the actual loading of the aircraft.
Load Plan Module	The information support system that translates the list of resources identified for deployment into a set of efficiently packed increments and then allocating those increments to chalks.
Load Planner	The individual who uses the Load Plan Module to design the increment and aircraft buildup.
Load Team	The group of individuals responsible for moving the personnel and increments into the transporting aircraft and positioning them for safe transport.
Loading Equipment	The equipment needed to move the increments and deploying personnel from the ground into the transporting aircraft.
Local Transport Assignment User Interface Module	The information system presents a proposed conveyance assignment for review and approval to the transportation controller.
Local Transport User Interface Module	The information system presenting a proposed conveyance assignment schedule to the base transportation center for review and approval.
Log Plan	(Logistics Plan) The list of all resources identified for deployment from a base and the units responsible for deploying each item.
Log Planner	(Logistics Planner) The personnel responsible for the overall tailoring of resources for the base units assigned for deployment.
Medical Personnel	Those responsible for administering the medication personnel to satisfy their deployment requirements.
On-Base Transportation	The trucks, forklifts, K-Loaders, etc. available on base to support the movement of resources during a deployment.
On-Base Transportation Control	The information system establishing an operational movement schedule and controls the assignment of transportation resources as necessary.
On-Site Correlation Module	A part of the DSOE development that integrates the deployment schedules for individual units into the final DSOE.
Overlap Selection/ Modification Module	A software tool, which selects those units with deployment, schedules that overlap sufficiently to allow for resource sharing and the interfacing with the users for verification of those selections.

Role	Description
Pallet Dollies	A wheel vehicle on which increments are build and providing the capability to move those increments from the generating units to the transporting aircraft in and efficient manner with minimal supporting equipment.
PDF Personnel	(Personnel Deployment Function Personnel) The augmentee individuals who position themselves in the PDF to verify the accuracy of each person prior to loading.
PDF Support Team	(Personnel Deployment Function Support Team) The individual assigned to perform the PFD tasks during a deployment effort.
Personnel	Individuals responsible for preparing unit resources for deployment.
Personnel and Systems	The general terminology used to identify and the individuals, information systems, and equipment used to accomplish the base-level deployment process.
Personnel Module	The software system that records specific deployment activities requested by the deploying individual prior to deployment.
Personnel Resources & Systems	The general terminology used to identify and the individuals, information systems, and equipment used to accomplish the base-level deployment process.
Personnel Status Check Module	A software module records the actions needed to be accomplished by a specific deploying individual to be fully prepared for the deployment. This system also reviews all deploying personnel records to determine if all their deployment requirements are satisfied.
Resource Listing Tool	A software module that tracts all resources (personnel and equipment) associated to a UTC.
Resource Preparation Module	A information system module comprised of a set of submodules, which supports the identification of resources for deployment and continues to direct and control the preparation and movement of the resources throughout the base-level deployment process.
Resource Selection Module	A software module that accepts the equipment requirements for deployment and selects the specific equipment to satisfy the deployment requirements. The selection considers such factors as current maintenance status and future maintenance needs.
Resource Tracking Module	The software module that tracks all the deployment related information for the deploying resources (both personnel and equipment).
Schedule Overlap Identification Module	A software module that tracks the deployment schedules by unit and UTC at reception sites. Using this insight, the module identifies those units and UTCs that could potential share deployed resources.
Status Collection Module	The software module designed to passively collect progress information related to the base-level deployment.
STEP	(Survey Tool for Employment Planning) The software tool used to facilitate the site survey process and to transfer the resulting site survey information to the units as necessary.
TMO	(Transportation Management Office) The base-level organization responsible for controlling the movement resources on the base.
Transport Coordination Module	A software module that helps organize the use of resources within a base for effectively moving deploying resources from the time of unit preparation until they are loaded into the transporting aircraft.
Transport Estimating Module	A software system capable of translating the resources identified for deployment into the number and type of aircraft required to transport those resources.

Role	Description
Transport Schedule Module	A software system providing the capability to define the arrival and departure schedules for a base assigned deployment requirements.
Transportation UDM	The vehicles used to move deploying resources within the base. (Unit Deployment Manager) The individual having total authority and responsibility to deploy the appropriate unit resources so as to satisfy the requirements of a deployment assignment.
Unit Correlation Tool	The overriding module that compares the deployment and employment schedules of units forming the basis for determining when deploying resources can be shared among units.
Unit Personnel	Individuals assigned to a unit and available for deployment.
Units Reception Site	The location to which deploying units will be positions through the deployment.
User Verification Module	A software system that interacts with the user so as to allow the user to review proposed decisions made by the LOG-AID Decision Support System and to change those proposed decisions as necessary.
UTC-DT	(Unit Type Code - Development & Tailoring) A software tool that interfaces with the individual responsible for specifying the items for deployment contained within a standard UTC. UTC-DT provides the user support capability to design new UTCs and to tailor standard UTC to effectively satisfy the requirements of an assigned deployment mission.
UTC-DT Extended	(Unit Type Code - Development & Tailoring Extended) A portion of UTC-DT that develops tailoring recommendations based on factors such as the reception site environmental conditions.
Work Center Personnel	Augmentees assigned to staff the various stations in the CDF and PDF as necessary
WRM Viz	(War Reserve Material Visibility) A software tool used to track the status of all WRM located at various sites.

APPENDIX G

**LOG-AID TO-BE DATA MODEL
AND GLOSSARY**

LOG-AID TO-BE DATA MODEL

The LOG-AID To-Be Data Model (DM) is a logical representation of the information used by and produced by the functions within the wing-level deployment process and documents the relationship between data elements.

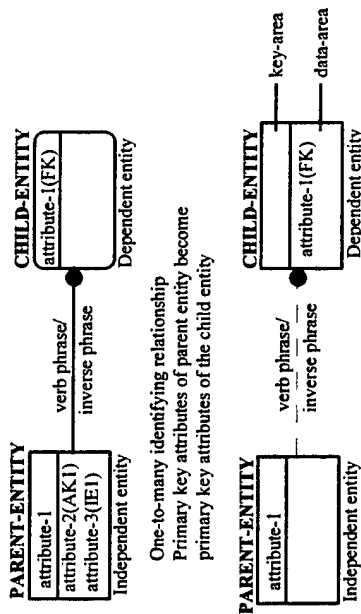
This appendix contains the IDEF1X graphical representation of the model. Figure G-1 contains a quick reference to IDEF1X notation. The complete model is presented in a single page. This contains all the entities with their associated attributes and the relationships between them.

In order to facilitate understanding and review of the DM, the entities are subdivided into broad classes of information types called subject areas. The attributes in each entity were examined to evaluate what type of information was represented. Then entities with similar types of information were grouped. By examining the classes of information represented, four major subject areas emerged: PLANS, CAPABILITY, RESOURCES, and ACTION.

The entities that represent the key data in the subject area and the entities that are related to these entities are displayed in each subject area. Because the entities that are related to the subject area are included on a diagram, an entity may exist in more than one subject area. Table G-1 contains a list of the subject areas diagrams on which the entities appear. A narrative that provides a general discussion of the subject area is presented on the page facing each subject area diagram.

IDEF1X NOTATION CONVENTIONS

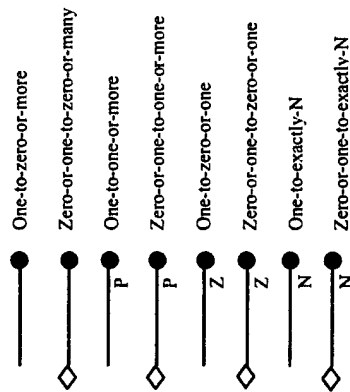
ENTITY & RELATIONSHIP NOTATION



ATTRIBUTE NOTATION

attribute (FK)	Foreign Key Primary key of another entity contributed by a relationship
role-name.attribute (FK)	Role name New name for foreign key connoting its use
attribute (AKn)	Alternate key Alternate unique identifier of the entity
attribute (IEn)	Inversion entry Non-unique access identifier of the entity
role-name.(c1,c2,c3)	Group Attribute Attribute is a group containing the listed constituents

CARDINALITY NOTATION



CATEGORY NOTATION

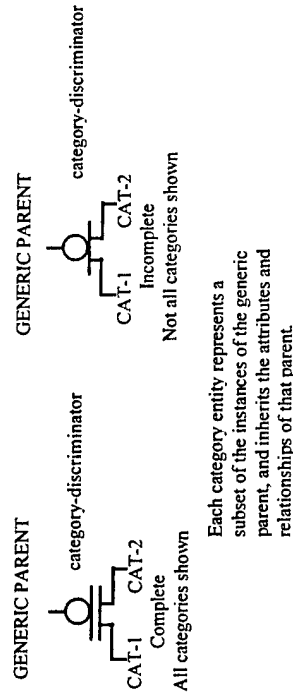


Figure G-1. IDEF1X Notation Conventions

Table G-1. Entity vs. Subject Area Matrix

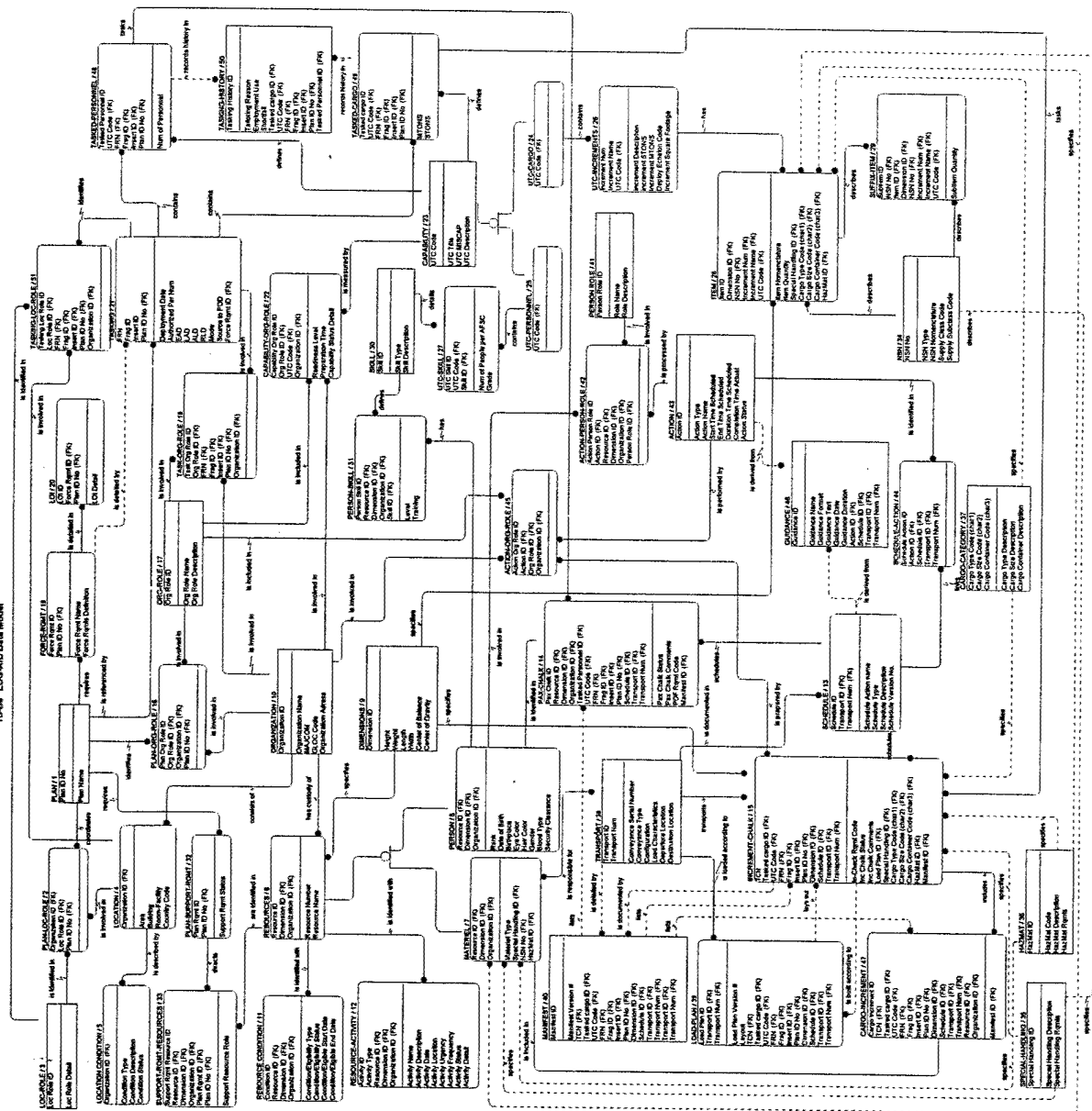
Entity Name	Subject Area Name
ACTION	ACTION
ACTION-ORG-ROLE	ACTION
ACTION-PERSON-ROLE	ACTION
ACTION-PERSON-ROLE	RESOURCES
CAPABILITY	CAPABILITY
CAPABILITY	PLAN
CAPABILITY-ORG-ROLE	CAPABILITY
CAPABILITY-ORG-ROLE	PLAN
CARGO-CATEGORY	RESOURCES
CARGO-INCREMENT	RESOURCES
DIMENSIONS	RESOURCES
FORCE-RQMT	PLAN
GUIDANCE	ACTION
HAZMAT	RESOURCES
INCREMENT-CHALK	ACTION
INCREMENT-CHALK	RESOURCES
ITEM	CAPABILITY
ITEM	RESOURCES
LOAD-PLAN	ACTION
LOAD-PLAN	RESOURCES
LOC-ROLE	PLAN
LOCATION	PLAN
LOCATION	RESOURCES
LOCATION-CONDITION	PLAN
LOI	PLAN
MANIFEST	ACTION
MANIFEST	RESOURCES
MATERIEL	RESOURCES
NSN	CAPABILITY
NSN	RESOURCES
ORG-ROLE	PLAN
ORGANIZATION	PLAN
ORGANIZATION	RESOURCES
PAX-CHALK	ACTION

Entity Name	Subject Area Name
PAX-CHALK	RESOURCES
PERSON	RESOURCES
PERSON-ROLE	RESOURCES
PERSON-SKILL	RESOURCES
PLAN	PLAN
PLAN-LOC-ROLE	PLAN
PLAN-ORG-ROLE	PLAN
PLAN-SUPPORT-RQMT	PLAN
RESOURCE-CONDITION	RESOURCES
RESOURCE-ACTIVITY	RESOURCES
RESOURCES	RESOURCES
SCHEDULE	ACTION
SCHEDULE-ACTION	ACTION
SKILL	CAPABILITY
SKILL	RESOURCES
SPECIAL-HANDLING	RESOURCES
SUFFIX-ITEM	CAPABILITY
SUFFIX-ITEM	RESOURCES
SUPPORT-RQMT-RESOURCES	PLAN
SUPPORT-RQMT-RESOURCES	RESOURCES
TASK-ORG-ROLE	PLAN
TASKED-CARGO	CAPABILITY
TASKED-CARGO	PLAN
TASKED-PERSONNEL	CAPABILITY
TASKED-PERSONNEL	PLAN
TASKING	PLAN
TASKING-HISTORY	CAPABILITY
TASKING-HISTORY	PLAN
TASKING-LOC-ROLE	PLAN
TRANSPORT	ACTION

Table G-1. Entity vs. Subject Area Matrix (cont'd)

<i>Entity Name</i>	<i>Subject Area Name</i>
TRANSPORT	RESOURCES
UTC-CARGO	CAPABILITY
UTC-CARGO	PLAN
UTC-INCREMENTS	CAPABILITY
UTC-PERSONNEL	CAPABILITY
UTC-PERSONNEL	PLAN
UTC-SKILL	CAPABILITY

"Yo-Bo" LOG-AID Data Model



PLANS

The PLANS subject area contains those data elements that represent the operations for deploying units to prepare for movement or increase their deployability posture.

The PLAN details the conduct of military operations. The PLAN identifies the FORCE RQMTs needed to fulfill the mission objectives. The forces and supplies needed to accomplish those objectives are detailed in the TASKING. The TASKING also details the movement schedule of the forces and supplies to the LOCATION of the theater of operation. The Letter of Instructions (LOI) details any specific instructions unique to the deployment and employment of the forces. Each unit line number (ULN) in the TASKING references a CAPABILITY. The TASKED CARGO and TASKED PERSONNEL may identify variations in the tasking from the standard UTC CAPABILITY. The variations may be due to environmental conditions identified in the LOCATION CONDITION, re-supply capabilities of the theater LOCATION, any fragmenting or tailoring requested by the MAJCOM, the TASKING HISTORY of previous similar deployments, or tailoring adjustments based on intra/inter-base units with TASKINGS to the same LOCATION. Each CAPABILITY contains detail about personnel and cargo needed to provide the UTC mission capability (MISCAP).

Each base develops a mobility plan contained in PLAN SUPPORT RQMT, which details how the base should operate if they were tasked to support the plan. The SUPPORT RQMT RESOURCES identify all the base resources that will be available to support the deployment identified in the PLAN.

Each PLAN references many LOCATIONS in its operations. The LOC ROLE defines all the roles a location may assume. The PLAN LOC ROLE identifies the specific role the LOCATION plays within the PLAN. For example, a PLAN may identify a base as a forward operating location or a port of embarkation. The LOCATION CONDITION provides detail about each specific LOCATION, such as the information identified in a base support plan or by an ADVON team.

Each PLAN also references many ORGANIZATIONS in its operations. The ORG ROLE defines all the roles an ORGANIZATION can assume. The role identified for an ORGANIZATION specified in a PLAN is depicted in the PLAN ORG ROLE. For example, the PLAN may identify a specific ORGANIZATION to play the ORG ROLE of a lead or follow-on unit.

The role identified for an ORGANIZATION specified in a TASKING is depicted in the TASK ORG ROLE. For example, the TASKING may identify a specific ORGANIZATION to play the ORG ROLE of a host or tenant unit. The role identified for an ORGANIZATION assigned a specific UTC CAPABILITY is depicted in the CAPABILITY ORG ROLE. For example, the ORGANIZATION may play an ORG ROLE of pilot unit for a specific CAPABILITY.

Each TASKING may reference many LOCATIONS in its scheduling and sequencing. The LOC ROLE defines all the roles a location may assume. The TASKING LOC ROLE identifies the specific role the LOCATION may play in the TASKING. For example, the TASKING may identify a specific LOCATION to play the LOC ROLE of a port of embarkation or port of debarkation.

[illegible]

CAPABILITY

The CAPABILITY subject area contains those data elements that represent a specific type of mission capability.

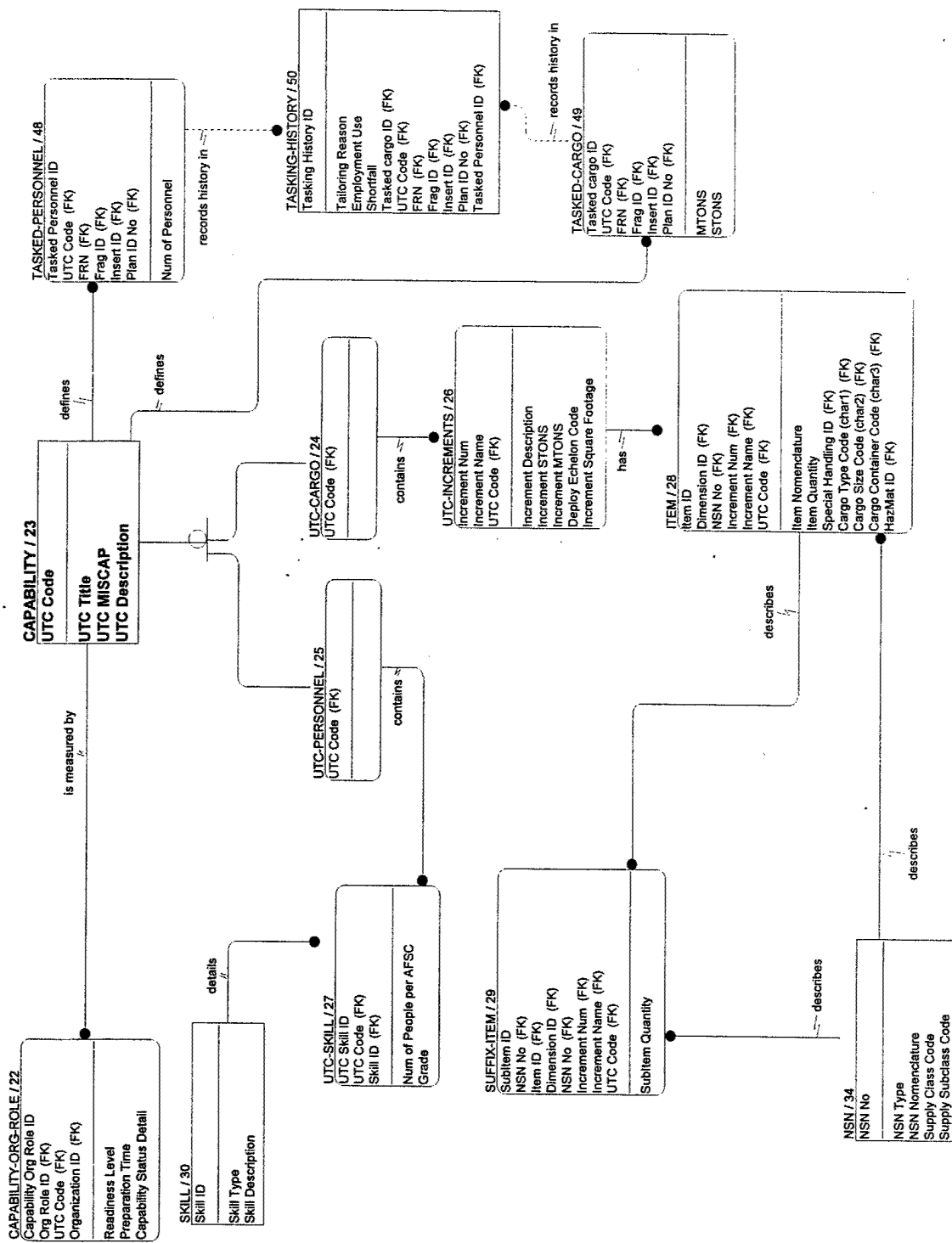
The CAPABILITY identifies a unit type code (UTC), with a specific mission capability (MISCAP) and is detailed by the UTC CARGO and UTC PERSONNEL. ORGANIZATIONS assume different roles for the UTC CAPABILITY, which are identified in the CAPABILITY ORG ROLE. For example, an ORGANIZATION may assume the ORG ROLE of a lead unit, follow-on-unit, pilot unit, etc. The ORGANIZATION's ability to provide all or part of the defined CAPABILITY is identified in the readiness level.

When tasked to provide a CAPABILITY, typically the standard is tailored to mission, reception site conditions, environmental conditions, and other tasked units. This is depicted in the TASKED CARGO and TASKED PERSONNEL. The history of deployments for the CAPABILITY is depicted in the TASKING HISTORY. This contains information regarding the rationale for tailoring, if a resource is/was shortfalled, and the use of the resource during employment missions.

The equipment, supplies, and spare parts considered UTC CARGO are detailed into separate UTC INCREMENTS. The UTC INCREMENT serves as the primary method for organizing material for deployment. The UTC INCREMENT provides a means to establish a sequence for movements, a reference point for tailoring, and a standardization among units with like weapon systems. The UTC INCREMENT may contain one or more ITEMS, which are identified in supply through a national stock number (NSN). An ITEM may contain SUFFIX ITEMS, which are also identified in supply through an NSN. For example, a toolbox, which has an NSN, may be an ITEM, but it may also contain tools, which are considered SUFFIX ITEMS.

The number of personnel required for a CAPABILITY is documented in the UTC PERSONNEL. This list purely consists of the number of people in the UTC CAPABILITY. The personnel requirements are then broken down by the number of people with a specific Air Force Specialty Code (AFSC); and a specific SKILL documented in UTC SKILL.

CAPABILITY Subject Area



RESOURCES

The RESOURCES subject area contains all those data elements that represent the resources that are deployed or support the deployment effort. The resources include all personnel, equipment, supplies, spare parts and people.

Every RESOURCE belongs to an ORGANIZATION, such as a unit, base supply, transportation, etc., and can be found at a specific LOCATION. Each RESOURCE has a RESOURCE CONDITION, which documents its status and requirements. This may include information such as maintenance requirements, training requirements, medical requirements, etc. All information regarding activities that are performed to RESOURCES is documented in RESOURCE ACTIVITY. This may include information regarding a maintenance action, a training class, a medical condition, an update to financial data, etc. Each RESOURCE also has DIMENSIONS associated with it. If the RESOURCE is identified to support the base deployment effort, then it is identified in the SUPPORT RQMT RESOURCES.

RESOURCES are categorized into MATERIEL and PERSON.

Each piece of MATERIEL has an NSN identified with it. A HAZMAT identifier if it is considered hazardous material, and any SPECIAL HANDLING requirements, if necessary. For transportation purposes in a deployment, items are grouped together into an INCREMENT CHALK. The MATERIEL contained on each INCREMENT CHALK is documented in the CARGO INCREMENT. The MANIFEST contains a list of all the CARGO INCREMENTS in the INCREMENT CHALK. The LOAD PLAN details the most efficient and safest building and layout of the INCREMENT CHALK. Each INCREMENT CHALK has a CARGO CATEGORY CODE associated with it, which identifies shipping requirements such as its type, size and shipping container restrictions. Each INCREMENT CHALK may also have a HAZMAT identifier if it contains hazardous material, and any SPECIAL HANDLING requirements, if necessary.

Each PERSON may have several SKILLS within their ability, which are documented in PERSON SKILL. The different roles a PERSON may perform are documented in PERSON ROLE. For each ACTION, a PERSON may assume different PERSON ROLES. These are documented in the ACTION PERSON ROLE. For example, a PERSON may be assigned the PERSON ROLE of NCOIC for the ACTION of CDF In-Check.

The TRANSPORT could be the on-base transportation that moves the resources from one location on the base to another location. It could also be the conveyance that moves the base resources off the base to another location. When the TRANSPORT is the chalk that moves the resources off the base, the MANIFEST documents all the passengers (PAX CHALK) and cargo (INCREMENT CHALK). The LOAD PLAN documents how all the resources will be placed on the TRANSPORT.

The diagram illustrates a data model with the following entities and their attributes:

- RESOURCES / 18**: Resource ID (PK), Dimension ID (FK), Organization ID (FK), Resource Number, Resource Name.
- RESOURCES / 23**: Support Equipment Resource ID (PK), Dimension ID (FK), Organization ID (FK), Pen ID No. (FK), Support Resource Role.
- LOCATION / 14**: Organization ID (FK), Location Name, Location Address, Location Code.
- RESOURCE ACTIVITY / 12**: Activity ID (PK), Resource ID (FK), Organization ID (FK), Activity Name, Activity Description, Activity Location, Activity Agency, Activity Frequency, Activity Detail.
- SPECIAL HANDLING / 20**: Special Handling ID (PK), Special Handling Description, Special Handling Role.
- CARGO CATEGORY / 17**: Cargo Type Code (char1) (PK), Cargo Site Code (char2) (FK), Cargo Container Code (char3) (FK), Cargo Site Description, Cargo Container Description.
- HANDLING / 26**: Handling ID (PK), Handling Code, Handling Description, Handling Role.
- CARGO INCREMENT / 17**: Cargo Increment ID (PK), TCN (FK), Cargo ID (FK), UTC Code (FK), FRN (FK), Pen ID No. (FK), Invert ID (FK), Schedule ID (FK), Transport ID (FK), Organization ID (FK), Manifest ID (FK).
- INCREMENT-CHUNK / 15**: TCN (FK), Cargo ID (FK), UTC Code (FK), FRN (FK), Pen ID No. (FK), Invert ID (FK), Schedule ID (FK), Transport ID (FK), Organization ID (FK), Manifest ID (FK).
- PERSON / 18**: Person ID (FK), Resource ID (FK), Organization ID (FK), Rank, Date of Birth, Sex, Eye Color, Hair Color, Blood Type, Security Clearance.
- PERSON-ROLE / 12**: Person ID (FK), Role ID (FK), Resource ID (FK), Organization ID (FK), Person Role ID (FK).
- ACTION-PERSON-ROLE / 12**: Action ID (FK), Person ID (FK), Resource ID (FK), Organization ID (FK), Person Role ID (FK).
- ITEM / 25**: Item ID (FK), Dimension ID (FK), Item No. (FK), Increment Name (FK), UTC Code (FK), Item Description, Item Quantity, Item Nonstructure, Item No. (FK), Cargo Type Code (char1) (FK), Cargo Site Code (char2) (FK), Cargo Container Code (char3) (FK), Status ID (FK).
- SUPPLY-ITEM / 25**: Item ID (FK), ASN No. (FK), ASN Nonstructure, Supply Chain Code, Supply Structure Code.
- TRANSPORT / 13**: Transport ID (FK), Consequence Serial Number, Load Plan ID (FK), Transport Type, Transport Characteristics, Transport Location, Destination Location.
- LOADPLAN / 26**: Load Plan ID (FK), TCN (FK), Transport ID (FK), Load Pen Version #, Tested cargo ID (FK), FRN (FK), Pen ID No. (FK), Schedule ID (FK), UTC Code (FK), Invert ID (FK), Pen ID No. (FK), Transport ID (FK), Organization ID (FK), Manifest ID (FK).
- MANIFEST / 40**: Manifest ID (FK), TCN (FK), Tested cargo ID (FK), FRN (FK), Pen ID No. (FK), Schedule ID (FK), UTC Code (FK), Invert ID (FK), Pen ID No. (FK), Transport ID (FK), Organization ID (FK), Manifest ID (FK).
- PALMCHALK / 14**: Palm Chalk ID (FK), Resource ID (FK), Organization ID (FK), UTC Code (FK), FRN (FK), Pen ID No. (FK), Invert ID (FK), Schedule ID (FK), Transport ID (FK), Organization ID (FK), Manifest ID (FK).

Relationships are indicated by lines with cardinalities and roles:

- RESOURCES / 18** is identified by **RESOURCES / 23** (1:M).
- RESOURCES / 18** is identified by **RESOURCE ACTIVITY / 12** (1:M).
- RESOURCES / 18** is identified by **PERSON / 18** (1:M).
- RESOURCES / 18** is identified by **PERSON-ROLE / 12** (1:M).
- RESOURCES / 18** is identified by **ACTION-PERSON-ROLE / 12** (1:M).
- RESOURCES / 18** is identified by **ITEM / 25** (1:M).
- RESOURCES / 18** is identified by **SUPPLY-ITEM / 25** (1:M).
- RESOURCES / 18** is identified by **TRANSPORT / 13** (1:M).
- RESOURCES / 18** is identified by **LOADPLAN / 26** (1:M).
- RESOURCES / 18** is identified by **MANIFEST / 40** (1:M).
- RESOURCES / 18** is identified by **PALMCHALK / 14** (1:M).

ACTION

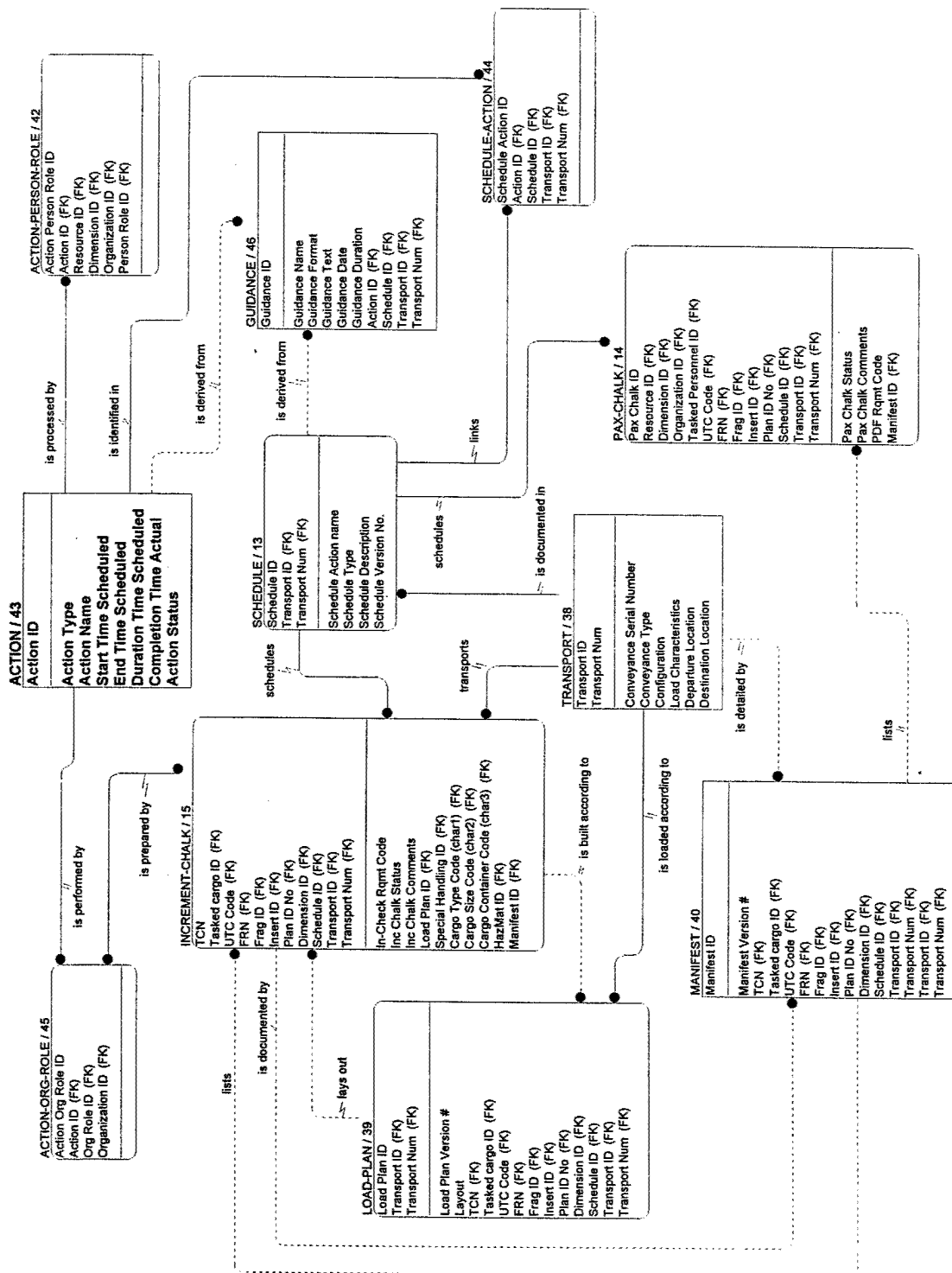
The ACTION subject area contains those data elements that represent the different activities, which occur throughout the deployment process.

ACTION defines the milestones and timing requirements of the activity. The ACTION ORG ROLE identifies the specific ORGANIZATION and the role they play in the ACTION of deployment. For example, a unit may be identified to perform the ORG ROLE of transportation in the ACTION. The ACTION PERSON ROLE identifies the specific PERSON and the role they must play in the ACTION. For example, a PERSON may be assigned the PERSON ROLE of UDM in an ACTION of deployment.

GUIDANCE is used to regulate both ACTIONS and the development of SCHEDULES. GUIDANCE contains information on how to document something, how to pack something, how long something should take, the resource requirements that should be consumed, the conditions that must be established for implementation, the criteria for certain decision making processes, etc.

The SCHEDULE ACTION documents each ACTION that occurs within the SCHEDULE. A SCHEDULE is developed for each TRANSPORT whether on base or off base. When the TRANSPORT is a conveyance taking the deployed resources off the base, a LOAD PLAN and MANIFEST are developed. The LOAD PLAN details the layout for each INCREMENT CHALK on the TRANSPORT, and the MANIFEST lists all the cargo (INCREMENT CHALK) and all the passengers (PAX CHALK) on the transport.

ACTION Subject Area



LOG-AID TO-BE DATA GLOSSARY

This appendix contains the LOG-AID Data Glossary for the To-Be Data Model (DM). The glossary is divided into three columns: (1) the name, which is the DM entity or attribute name, (2) the definition of the item, and (3) the DM reference. The names of the entities are in all capitals. The names of the attributes are in all lowercase with lead caps. Definitions may include comments further explaining the item and providing examples. The names of associative entities are expanded by naming each of the entities that are being associated with an "x" between them to denote the intersection of these entities.

NAME	DEFINITION	REFERENCE
ACTION	All activities, both those supported by automated systems and those performed manually, involved in the deployment process.	Entity
Action ID	The action identifier is the unique identifier for a record of a specific action.	Attribute of ACTION
Action Type	The type and name of a performed action.	Attribute of ACTION
Start Time Scheduled	The time at which the action is scheduled to start.	Attribute of ACTION
End Time Scheduled	The time at which the action is scheduled to be completed.	Attribute of ACTION
Duration Time Scheduled	The length of time in which the entire action should occur.	Attribute of ACTION
Completion Time Actual	The actual time the action was completed.	Attribute of ACTION
Action Status	The status of the action, including any problems, and corrective issues.	Attribute of ACTION
ACTION-ORG-ROLE	(ACTION x ORGANIZATION x ROLE) An association among an action, the organization, and the organizational role the organization has in the action.	Entity
Action Organizational Role ID	The unique identifier for a record of an organizational role in an action.	Attribute of ACTION-ORG-ROLE
ACTION-PERSON-ROLE	(ACTION x PERSON x ROLE) An association among an action, the person, and the role the person has in the action.	Entity
Action Person Role ID	The unique identifier for a record of a person, and the role the person plays in a specific action.	Attribute of ACTION-PERSON-ROLE
CAPABILITY	A mission capability that can be provided by a specific force package of defined technical sophistication of the forces' units, weapon systems, and equipment, with the sustainability of those forces, units, and weapon systems.	Entity
UTC Code	A five character alphanumeric designator that uniquely identifies the capability.	Attribute of CAPABILITY
UTC Title	The unit type code title.	Attribute of CAPABILITY
UTC MISCAP	The mission capability defines the type and amount of workload the force is capable of accomplishing.	Attribute of CAPABILITY
UTC Description	Pertinent information such as the type of base where commanders will deploy, the unit's functional activities, and other augmentation requirements, including type and amount, necessary to conduct specific missions.	Attribute of CAPABILITY
CAPABILITY-ORGANIZATION-ROLE	(CAPABILITY x ORGANIZATION x ROLE) An association among a capability, an organization, and the role the organization plays in the capability. COMMENTS: For example, this could identify an organization and a UTC, and the organization plays the role of the pilot unit in the UTC.	Entity
Capability Organization Role ID	The unique identifier for a record of an organization and the role the organization plays in a capability.	Attribute of CAPABILITY-ORG-ROLE
Readiness Level	The ability of the forces, units, and weapon systems to deliver the designated capability at a specific point in time.	Attribute of CAPABILITY-ORG-ROLE

NAME	DEFINITION	REFERENCE
Preparation Time	The length of time in which the organization requires to be at the readiness level they stated for the capability.	Attribute of CAPABILITY-ORG-ROLE
Capability Status Detail	Any further detail on the status of the organization and its ability to provide the capability.	Attribute of CAPABILITY-ORG-ROLE
CARGO-CATEGORY	Descriptive codes assigned to cargo according to their characteristics and properties.	Entity
Cargo Type Code (char1)	A code referencing the type of cargo, such as HazMat, chemical, ammunition, etc.	Attribute of CARGO-CATEGORY
Cargo Size Code (char2)	A code referencing the size of the cargo, such as bulk, oversized, outsized, non-air transportable, etc.	Attribute of CARGO-CATEGORY
Cargo Container Code (char3)	A code referencing the container requirements such as organic vehicles, container 20 ft and 20 STONS or less, non containerable, etc.	Attribute of CARGO-CATEGORY
Cargo Type Description	A textual description of the type of cargo, such as HazMat, chemical, ammunition, etc.	Attribute of CARGO-CATEGORY
Cargo Size Description	A textual description of the size of the cargo, such as bulk, oversized, outsized, non-air transportable, etc.	Attribute of CARGO-CATEGORY
Cargo Container Description	A textual description of the container requirements such as organic vehicles, container 20 ft and 20 STONS or less, non containerable, etc.	Attribute of CARGO-CATEGORY
CARGO-INCREMENT	The deployable material that is packaged into an increment and will be transported to the reception site on the designated chalk.	Entity
Cargo Increment ID	The unique identifier of a record of cargo that will be included in the increment.	Attribute of CARGO-INCREMENT
DIMENSIONS	Specific parameters about resources.	Entity
Dimension ID	A unique identifier for the dimension record.	Attribute of DIMENSIONS
Height	The height of the resource.	Attribute of DIMENSIONS
Weight	The weight of the resource.	Attribute of DIMENSIONS
Length	The length of the resource.	Attribute of DIMENSIONS
Width	The width of the resource.	Attribute of DIMENSIONS
Center of Balance	The center of balance of the resource.	Attribute of DIMENSIONS
Center of Gravity	The center of gravity of the resource.	Attribute of DIMENSIONS
FORCE-RQMT	The force requirement is a specific mission that must be accomplished.	Entity
Force Requirement ID	The force requirement is a record of a force requirement.	Attribute of FORCE-RQMT
Force Requirement Name	The name of the mission that must be accomplished by the force requirement.	Attribute of FORCE-RQMT
Force Requirements Definition	A description of the force requirement and the mission that must be accomplished.	Attribute of FORCE-RQMT

NAME	DEFINITION	REFERENCE
GUIDANCE	The rules, laws, procedures, and technical assistance that govern and aid defense-related processes, including the deployment process. COMMENTS: For example, military regulations and instructions.	Entity
Guidance ID	The guidance identifier is the unique identifier of a record of guidance.	Attribute of GUIDANCE
Guidance Name	The name of the guidance material.	Attribute of GUIDANCE
Guidance Format	The format of the guidance material.	Attribute of GUIDANCE
Guidance Text	Textual information that is used in the guidance material. COMMENT: For example, how to document Hazmat, how to compute the center of balance, conditions for replacement of ID card, etc.	Attribute of GUIDANCE
Guidance Date	The date of the latest release of the guidance material.	Attribute of GUIDANCE
Guidance Duration	Estimated duration times for specific actions. COMMENTS: For example, standard set-up times for a work center, time for a unit to prepare cargo, standard ground time for an aircraft, etc.	Attribute of GUIDANCE
HAZMAT	Information regarding specific cargo that is considered hazardous material. COMMENT: For example, flammable liquids and solids, oxidizing materials, corrosive materials, radioactive material, etc.	Entity
HazMat ID	The unique identifier for a record of hazardous material type information.	Attribute of HAZMAT
HazMat Code	The specific code that correlates the material with the type of hazard it contains or is consisted of.	Attribute of HAZMAT
HazMat Description	A description of the kind of hazardous material.	Attribute of HAZMAT
HazMat Requirements	A description of the requirements for handling the hazardous material and the cautions associated with its relationships to other materials.	Attribute of HAZMAT
INCREMENT-CHALK	The association between CARGO INCREMENT and SCHEDULE. It contains a list of the increments that are identified in the SCHEDULE to be shipped on the chalk.	Entity
TCN	The Transportation Control Number is assigned to a specific increment to be used in tracking by the transportation community.	Attribute of INCREMENT-CHALK
Inc Chalk Status	The status of the increment in its building, processing, and transporting.	Attribute of INCREMENT-CHALK
Inc Chalk Comments	More detailed information about the status including rationale for a shortfall, rejection, frustration, etc.	Attribute of INCREMENT-CHALK
In-Check Requirement Code	Codes that identify how that cargo should be processed through the work centers.	Attribute of INCREMENT-CHALK
ITEM	An item is the next level of breakdown of what is stored on an increment. For instance, an increment may contain 10 items. A piece of rolling stock can be considered an increment and an item. Therefore, that increment contains one item.	Entity
Item ID	The unique identifier for a record of an item.	Attribute of ITEM

NAME	DEFINITION	REFERENCE
Item Nomenclature	Textual information about the item.	Attribute of ITEM
Item Quantity	The number of the same items that are in the same increment.	Attribute of ITEM
LOAD-PLAN	A detailed description of the layout of the conveyance or an increment, where each increment should be positioned on the conveyance, and where each item should be positioned on an increment	Entity
Load Plan ID	The unique identifier of a record of a load plan.	Attribute of LOAD-PLAN
Load Plan Version #	The version number of the specific load plan.	Attribute of LOAD-PLAN
Layout	The textual and graphic description of the packaging, building, and loading of the increment or chalk.	Attribute of LOAD-PLAN
LOC-ROLE	(LOCATION x ROLE) The association between a location and the roles that location may play.	Entity
Loc Role ID	The location role identifier is the unique identifier for a record of location role.	Attribute of LOC-ROLE
Loc Role Detail	Textual information regarding the role the location may assume.	Attribute of LOC-ROLE
LOCATION	A specific physical site at which organizations reside and assets are stored.	Entity
Area	The area on the complex in which the location can be found.	Attribute of LOCATION
Building	The building number or name of the location.	Attribute of LOCATION
Room-Facility	The room number or facility name of the location.	Attribute of LOCATION
Country Code	The code identifying the country in which the location can be found.	Attribute of LOCATION
LOCATION-CONDITION	Information regarding the status of the location. This is where information from the BSP and ADVON team could be found.	Entity
Condition Type	The type of condition for the report. COMMENTS: For example, maps, civil engineering information, services available, medical capabilities, WRM, munitions, security, contracting, weather, etc.	Attribute of LOCATION CONDITION
Condition Description	Detailed data about the condition type.	Attribute of LOCATION CONDITION
Condition Status	Any status relevant to the condition type.	Attribute of LOCATION CONDITION
LOI	The Letter of Instruction provides deployment instructions that are specifically related to the mission to be accomplished at the reception site. COMMENTS: For example, the LOI may require the personnel to carry their weapons at their side during transport, so they are immediately available upon arrival at the reception location.	Entity
LOI ID	The unique identifier of a record of a LOI.	Attribute of LOI
LOI Detail	Detailed information about the instructions.	Attribute of LOI

NAME	DEFINITION	REFERENCE
MANIFEST	The manifest contains a list of the increments and passengers on the chalk, along with the load plan of the chalk, or a list of items on an increment.	Entity
Manifest ID	The unique identifier of a record of a manifest.	Attribute of MANIFEST
Manifest Version #	The version number of the manifest for identifying changes and maintaining configuration management.	Attribute of MANIFEST
MATERIEL	Every piece of equipment, supplies, and spare parts.	Category Entity of RESOURCES
Materiel Type	The category of materiel. COMMENTS: For example, rolling stock.	Attribute of MATERIEL
NSN	The National Stock Number is the catalogued identifier for an item of materiel.	Entity
NSN No	The specific national stock number.	Attribute of NSN
NSN Type	The type or category of an item.	Attribute of NSN
NSN Nomenclature	The name assigned to the specific national stock number.	Attribute of NSN
Supply Class Code	The supply class code for the NSN in the supply system.	Attribute of NSN
Supply Subclass Code	The supply subclass code for the NSN in the supply system.	Attribute of NSN
ORGANIZATION-ROLE	The roles an organization can assume.	Entity
Organization Role ID	The organization role identifier is the unique identifier for a record.	Attribute of ORG-ROLE
Organization Role Name	The textual name of the organizational role.	Attribute of ORG-ROLE
Organization Role Description	A description of the role an organization can assume.	Attribute of ORG-ROLE
ORGANIZATION	An administrative structure with a mission, both government and non-government. COMMENTS: Organizations may contain suborganizations. For example, a base may contain wings, a wing may contain groups, a group may contain squadrons, and a squadron may contain flights.	Entity
Organization ID	The organization identifier is the unique identifier for a record of an organization.	Attribute of ORGANIZATION
Organization Name	The unique name of the organization.	Attribute of ORGANIZATION
MAJCOM	The Major Command in which the organization is assigned.	Attribute of ORGANIZATION
GLCC Code	The geographic location of the organization.	Attribute of ORGANIZATION
Organization Address	The specific address of the organization.	Attribute of ORGANIZATION
PAX-CHALK	The passengers that are assigned to a specific chalk and will be documented in the manifest.	Entity
Pax Chalk ID	The unique identifier of a record of a passenger on a chalk.	Attribute of PAX-CHALK
Pax Chalk Status	The status of the preparation and processing of each passenger.	Attribute of PAX-CHALK
Pax Chalk Comments	Any additional details regarding the status of the processing person. This can include justification for delays, no-shows, shortfalls, etc.	Attribute of PAX-CHALK

NAME	DEFINITION	REFERENCE
PDF Requirement Code	The codes identifying the work centers in which the person must process in the PDF.	Attribute of PAX-CHALK
PERSON	A human being for whom information is maintained.	Category Entity of RESOURCES
Date of Birth	The date of birth of the person.	Attribute of PERSON
Birthplace	The place of birth of the person.	Attribute of PERSON
Eye Color	The eye color of a person.	Attribute of PERSON
Hair Color	The hair color of a person.	Attribute of PERSON
Gender	The sex of a person.	Attribute of PERSON
Blood Type	The blood type of a person.	Attribute of PERSON
Security Clearance	The security clearance of a person.	Attribute of PERSON
Rank	The military or civilian rank of the person.	Attribute of PERSON
PERSON ROLE	The various roles a person can assume throughout different phases of the process.	Entity
Person Role ID	The unique identifier for the record of the type of role a person can assume.	Attribute of PERSON ROLE
Role Name	The name of the role a person can assume.	Attribute of PERSON ROLE
Role Description	A textual description of the role a person assumes.	Attribute of PERSON ROLE
PERSON-SKILL	(PERSON x SKILL) The associative entity relating a person to the types of skills the person may have.	Entity
Person Skill ID	The unique identifier of a record of a skill of a person.	Attribute of PERSON-SKILL
Level	The skill level of the person.	Attribute of PERSON-SKILL
Training	The training completed to achieve the skill level and the time interval for which a skill qualification is valid.	Attribute of PERSON-SKILL
PLAN	A scheme for achieving an end over time. COMMENTS: For example, an OPLAN, designed for the conduct of military operations, identifies one or more operations that units carry out simultaneously or in a series of connected stages.	Entity
Plan ID Number	The plan identifier number is the unique identifier for the record of the particular plan.	Attribute of PLAN
Plan Name	The name of the plan.	Attribute of PLAN
PLAN-LOCATION-ROLE	(PLAN x LOCATION x ROLE) This is the associative entity between the plan, a location identified in the plan, and the role the location will assume for the plan.	Entity
PLAN-ORGANIZATION-ROLE	(PLAN x ORGANIZATION x ROLE) This is the associative entity between the plan and an organization identified in the plan and the role that organization will assume for the plan.	Entity
Plan Organization Role ID	The unique identifier of a record of an organizational role in a plan.	Attribute of PLAN-ORG-ROLE

NAME	DEFINITION	REFERENCE
PLAN-SUPPORT-REQUIREMENT	This is the document that identifies how an organization would support a plan. COMMENTS: For example, a base deployment plan would fall into this entity.	Entity
Plan Requirement ID	The unique identifier of a record of a support requirement of a plan.	Attribute of PLAN-SUPPORT-RQMT
Support Requirement Status	Any details on the development of the support requirements.	Attribute of PLAN-SUPPORT-RQMT
RESOURCE CONDITION	Information regarding the condition, availability, status, and requirements of a resource.	Entity
Condition ID	The unique identifier of a record of a condition description for a resource.	Attribute of RESOURCE CONDITION
Condition/Eligibility Type	The criteria for measuring eligibility.	Attribute of RESOURCE CONDITION
Condition/Eligibility Status	The ability to meet the eligibility criteria.	Attribute of RESOURCE CONDITION
Condition/Eligible Start Date	The beginning data necessary for the resource to meet the criteria.	Attribute of RESOURCE CONDITION
Condition/Eligible End Date	The end data necessary for the resource to meet the criteria.	Attribute of RESOURCE CONDITION
RESOURCE-ACTIVITY	The various functions that are performed on resources to keep records current.	Entity
Activity ID	The unique identifier of a record of an activity performed on a resource.	Attribute of RESOURCE-ACTIVITY
Activity Type	The type of activity that is performed on a resource and results in an update to their records.	Attribute of RESOURCE-ACTIVITY
Activity Name	The name of the activity that is performed. COMMENTS: For example, this could be a maintenance activity on material, or a dental activity on personnel, etc.	Attribute of RESOURCE-ACTIVITY
Activity Description	A textual description of the activity.	Attribute of RESOURCE-ACTIVITY
Activity Date	The date on which the activity is performed.	Attribute of RESOURCE-ACTIVITY
Activity Location	The location at which the activity is performed.	Attribute of RESOURCE-ACTIVITY
Activity Urgency	The priority or urgency of the requirement for the activity. COMMENTS: If a piece of equipment is targeted for deployment and a maintenance activity is due in the near future, the urgency of performing that function would be high to get the equipment fully operational for the deployment.	Attribute of RESOURCE-ACTIVITY
Activity Frequency	The time duration between consecutive performances of this activity.	Attribute of RESOURCE-ACTIVITY
Activity Status	The status of the performance of this activity.	Attribute of RESOURCE-ACTIVITY
Activity Detail	Details of the status of the performance of this activity and any rationale for delays or problems.	Attribute of RESOURCE-ACTIVITY

NAME	DEFINITION	REFERENCE
RESOURCES	Every resource, which belongs to an organization in which information is maintained. COMMENTS: For example, people, equipment, supplies, spare parts, conveyances, etc.	Entity
Resource ID	The unique identifier of a record of a resource.	Attribute of RESOURCES
Resource Number	The identifier of a resource. COMMENT: For example, a social security number, a serial number, etc.	Attribute of RESOURCES
Resource Name	The name of the resource.	Attribute of RESOURCES
SCHEDULE	A prioritized set of actions that must be completed. COMMENTS: For example, the on-base transportation schedule to move resources around the work centers, the deployment schedule of events (DSOE) to identify the resource movements for a specific chalk, etc.	Entity
Schedule ID	The unique identifier of a record of a schedule.	Attribute of SCHEDULE
Schedule Action Name	The name of the specific schedule.	Attribute of SCHEDULE
Schedule Type	The type of schedule.	Attribute of SCHEDULE
Schedule Description	A description of what the schedule defines will be accomplished.	Attribute of SCHEDULE
Schedule Version Number	The version number of the schedule for identifying changes and maintaining configuration management.	Attribute of SCHEDULE
SCHEDULE-ACTION	(SCHEDULE x ACTION) The association between the actions identified in the deployment process and those identified in the schedule.	Entity
Schedule Action ID	The unique identifier for a record of an action in a schedule.	Attribute of SCHEDULE-ACTION
SKILL	Basic proficiencies required to accomplish defense-related workloads. Includes both proficiency in a trade or at following a given method.	Entity
Skill ID	The unique identifier for a record of skill.	Attribute of SKILL
Skill Type	The name used to identify the various personnel skills.	Attribute of SKILL
Skill Description	A detailed description of the skill.	Attribute of SKILL
SPECIAL-HANDLING	The various special handling requirements that may be attached to certain cargo.	Entity
Special Handling ID	The handling identifier is the unique identifier code that is assigned to the cargo when it requires special handling.	Attribute of SPECIAL-HANDLING
Special Handling Description	The description of the special handling that must be performed.	Attribute of SPECIAL-HANDLING
Special Handling Requirements	The name and definition of the special handling requirement.	Attribute of SPECIAL-HANDLING
SUFFIX-ITEM	A lower level detail of pieces of equipment, supplies or spare parts that may be gathered together and considered as one item. Items may be joined together and considered an increment. This is used in the detailed decomposition of cargo in a UTC capability.	Entity
SubItem ID	The unique identifier for a record of a suffix item.	Attribute of SUFFIX-ITEM

NAME	DEFINITION	REFERENCE
SubItem Quantity	The number of subitems that are joined together into the item.	Attribute of SUFFIX-ITEM
SUPPORT-REQUIREMENT-RESOURCES	Resources that are identified to support the base deployment effort.	Entity
Support Requirement Resource ID	The unique identifier of a record of a resource identified to support the base deployment.	Attribute of SUPPORT-RQMT-RESOURCES
Support Resource Role	The role the resource must support in the deployment.	Attribute of SUPPORT-RQMT-RESOURCES
TASK-ORGANIZATION-ROLE	(TASK x ORGANIZATION x ROLE) This is the associative entity between the tasking and the organization identified in the tasking and the role the organization assumes in the tasking. COMMENTS: For example, the organization may be identified as the unit to deploy.	Entity
Task Organization Role ID	The unique identifier of a record of a role an organization plays in the tasking.	Attribute of TASK-ORG-ROLE
TASKED-CARGO	The tasked cargo is the tailored cargo requirements of the UTC. Rather than deploy a standard UTC, the cargo may be tailored due to environmental reasons, mission requirements, reception site capabilities, a fragmented order, etc.	Entity
Tasked Cargo ID	The unique identifier of a record of tasked cargo.	Attribute of TASKED-CARGO
MTONS	The total measured tons of the cargo tasked to deploy.	Attribute of TASKED-CARGO
STONS	The total number of short tons of the cargo tasked to deploy.	Attribute of TASKED-CARGO
TASKED-PERSONNEL	The tasked personnel are the tailored personnel requirements of the UTC. Rather than deploy a standard UTC, the number of personnel may be adjusted due to mission requirements, reception site capabilities, a fragmented order, etc.	Entity
Tasked Personnel ID	The unique identifier of a record of tasked personnel.	Attribute of TASKED-PERSONNEL
Number of Personnel	The number of people that are needed to deploy with the UTC.	Attribute of TASKED-PERSONNEL
TASKING	The time-phased force deployment data contains the time-phased force data, the non-unit related cargo and personnel data, and movement data for the plan.	Entity
FRN	The Force Requirement Number is a five character alphanumeric code used to uniquely identify force entries in the TPFDD. The first two characters identify the theater of operation. The five characters make up the first five of seven characters in the unit line number (ULN).	Attribute of TASKING
Fragment ID	A single character used to identify elements of a force deploying in more than one increment. Makes up the sixth position of the ULN.	Attribute of TASKING

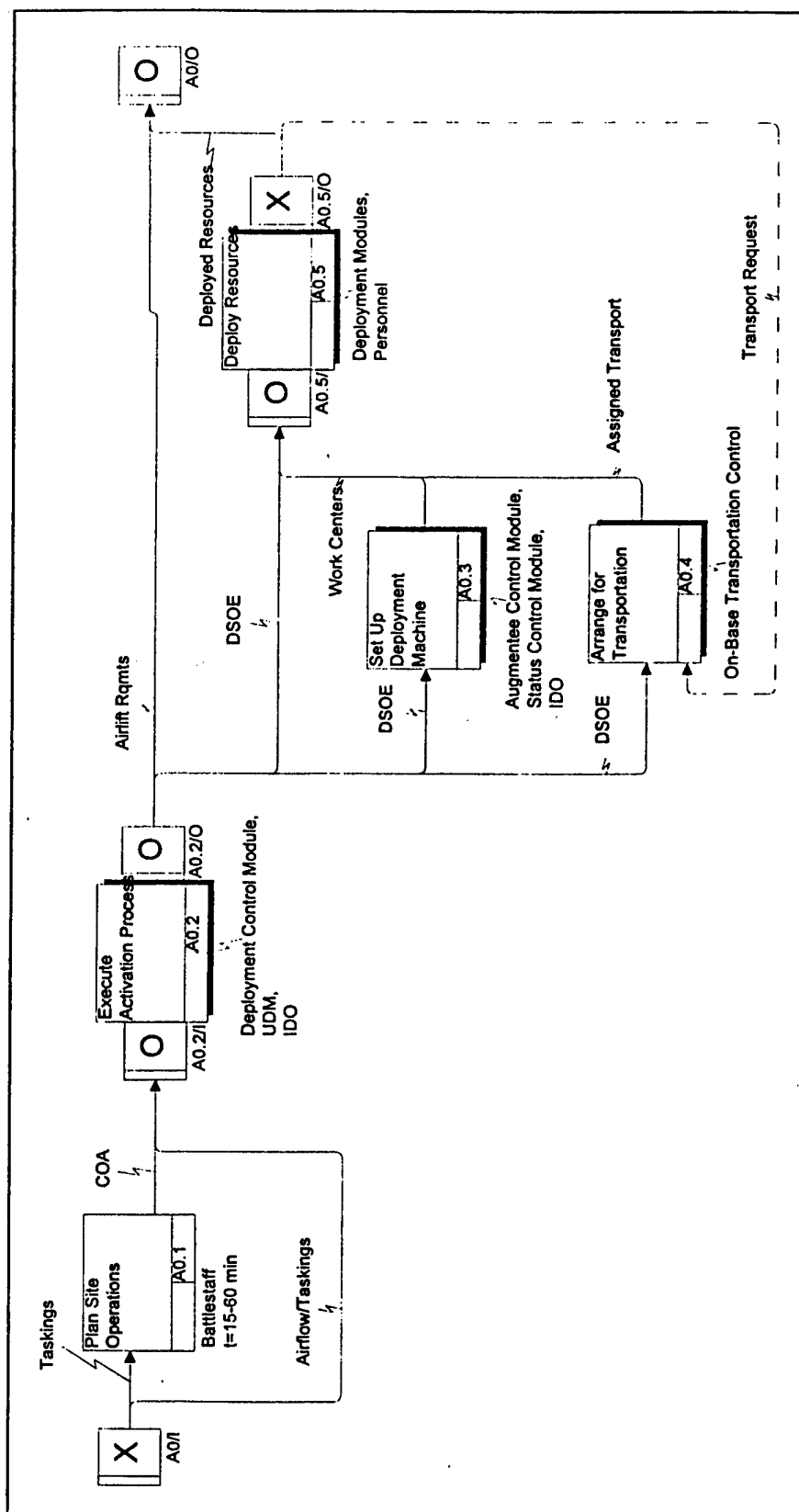
NAME	DEFINITION	REFERENCE
Insert ID	A single character code used to further identify elements of a force deploying in two or more increments. Makes up the seventh (and last) character of the ULN.	Attribute of TASKING
Deployment Date	The date the unit identified in the TPFDD is scheduled to start deploying their forces off the home station.	Attribute of TASKING
Authorized Per Number	The Authorized personnel number is the number of passengers to be deployed plus the number of crewmembers of the aircraft.	Attribute of TASKING
EAD	The earliest arrival date on which the deployed forces or replacement personnel can be accepted at a port of debarkation during a deployment. Used in conjunction with the LAD to define a delivery window for transportation planning.	Attribute of TASKING
LAD	The latest arrival date on which the deployed forces should arrive at the port of debarkation and support the concept of operations.	Attribute of TASKING
ALD	The available load date is the date in the TPFDD when equipment and forces can begin loading on an aircraft or ship at the port of embarkation.	Attribute of TASKING
RLD	The ready to load date is when the forces should be prepared to depart their origin on organic transportation or are prepared to begin loading on USTRANSCOM furnished transportation.	Attribute of TASKING
Mode	The type of conveyance that will be used to transport the forces from the home station.	Attribute of TASKING
Source to POD	The source of the transportation for the unit resources to the port of debarkation, which may be a seaport or aerial port. The POD may or may not coincide with the final destination.	Attribute of TASKING
TASKING-HISTORY	All the information about the progress, status, and history of a deployment.	Entity
Tasking History ID	The unique identifier of a record of tasking history.	Attribute of TASKING-HISTORY
Tailoring Reason	The rationale for the tailoring of a requirement. COMMENTS: For example, environmental, deployment duration, supply capabilities at reception site, resource availability at reception site, fragmented, MAJCOM tailored, sharing with another unit, use in previous deployments, etc.	Attribute of TASKING-HISTORY
Employment Use	Information regarding the use of resources at the employment site.	Attribute of TASKING-HISTORY
Shortfall	Information regarding the shortfall of a specific requirement.	Attribute of TASKING-HISTORY
TASKING-LOCATION-ROLE	(TASKING x LOCATION x ROLE) This is the associative entity between the tasking, the location, and the role the location assumes in the tasking. COMMENTS: For example, the location may be identified as a port of embarkation.	Entity
Tasking Location Role ID	The unique identifier of a record of a role a location plays in a tasking.	Attribute of TASKING-LOC-ROLE

NAME	DEFINITION	REFERENCE
TRANSPORT	A specific conveyance that has been assigned to transport resources. COMMENTS: For example, On-base transportation trucks and busses, airlift provided to transport resources off the base, etc. Chalk may be an Alias for TRANSPORT.	Entity
Transport ID	The unique identifier of a record of a transport.	Attribute of TRANSPORT
Transport Number	The identifier for the transport in the deployment. COMMENTS: For example, the first chalk scheduled to the base is considered chalk 1.	Attribute of TRANSPORT
Conveyance Serial Number	The serial number of the specific conveyance.	Attribute of TRANSPORT
Conveyance Type	The type of conveyance. COMMENTS: For example, truck, bus, aircraft, ship, etc.	Attribute of TRANSPORT
Configuration	The unique configuration of the specific conveyance.	Attribute of TRANSPORT
Load Characteristics	Any special loading requirements for the conveyance.	Attribute of TRANSPORT
Departure Location	The location from which the conveyance is to depart.	Attribute of TRANSPORT
Destination Location	The final destination for the conveyance.	Attribute of TRANSPORT
UTC-CARGO	Equipment, supplies, and spare parts identified in a UTC.	Category Entity of CAPABILITY
UTC-INCREMENTS	The Unit Type Code increment identifies the arrangement of equipment, supplies, and spare parts to support the cargo side of the deployment capability. The increments are used for planning purposes.	Entity
Increment Number	The number of the increment assigned to the UTC capability.	Attribute of UTC-INCREMENTS
Increment Name	The name of the UTC increment.	Attribute of UTC-INCREMENTS
Increment Description	A description of the increment of the UTC capability	Attribute of UTC-INCREMENTS
Increment STONS	The total short tons that comprise the increment.	Attribute of UTC-INCREMENTS
Increment MTONS	The total measurement tons that comprise the increment.	Attribute of UTC-INCREMENTS
Deploy Echelon Code	The deployment echelon codes are used to establish priorities and sequencing of movement of an increment.	Attribute of UTC-INCREMENTS
Increment Square Footage	The total square footage of the increment of the UTC capability.	Attribute of UTC-INCREMENTS
UTC-PERSONNEL	The number of personnel identified in the UTC.	Category Entity of CAPABILITY
UTC-SKILL	The further level of detail of the personnel requirements of a UTC capability.	Entity
UTC Skill ID	The UTC skill identifier is the unique identifier of the record of UTC skill requirements.	Attribute of UTC-SKILL
Num of People per AFSC	This identifies the number of passengers by Air Force specialty code.	Attribute of UTC-SKILL
Grade	This identifies whether a rank requirement must be assigned to an AFSC requirement.	Attribute of UTC-SKILL

APPENDIX H

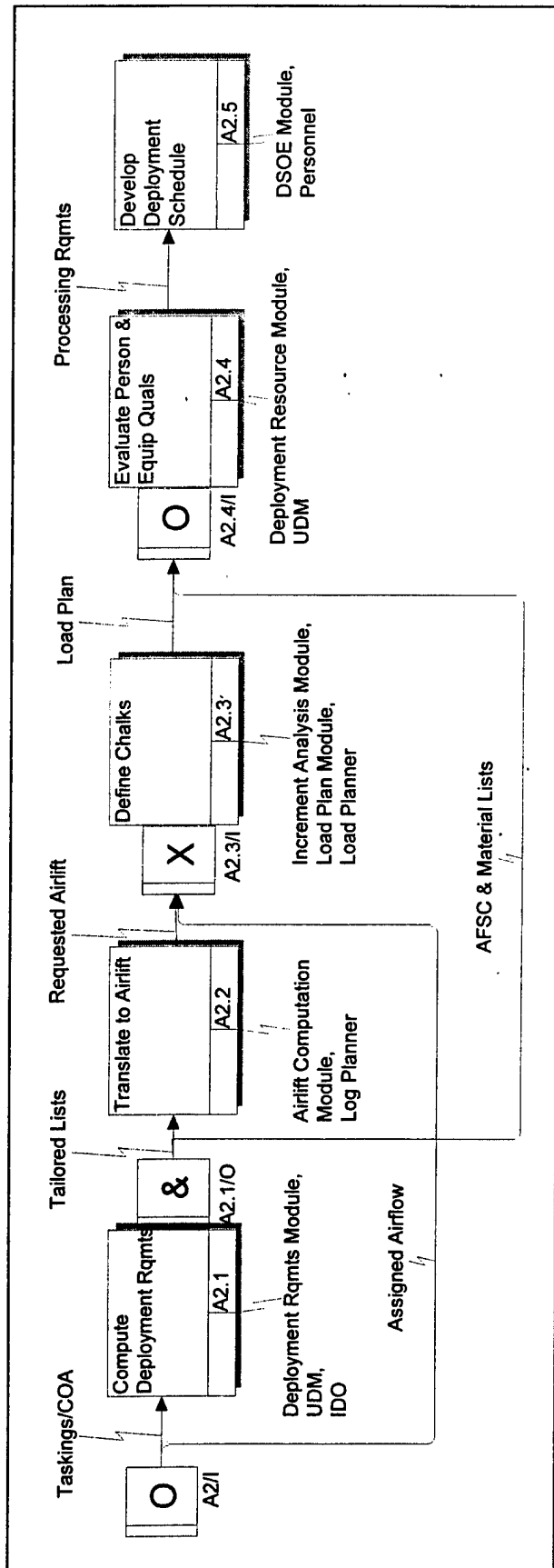
LOG-AID TO-BE PROCESS MODEL

Node Number	Process Name	Output/Product	Description	Time to Complete (in minutes)	Frequency of Occurrence	Exceptions/ Rules Variation Factors	Resource
A0.1	Plan Site Operations	COA	The battle staff analyzes the deployment tasking and adjusts the current operational characteristics of the base to support the deployment operational requirements.	min 15 mean 30 max 60			Base Commander Battlestaff
A0.2	Execute Activation Process	Airlift Requirements	Once the equipment and personnel requirements are tailored, the actual airlift requirements are computed to meet those tailored requirements.	See Decomposition			Deployment Control Module, UDM, IDO
		DSOE	The Deployment Schedule of Events is computed to identify all no later than times for internal base milestones in order to accomplish the deployment and meet the designated scheduled airflow.				Deployment Control Module, UDM, IDO
A0.3	Set Up Deployment Machine	Work Centers	Using the milestones in the DSOE as the guidelines, the augmentees are prepared and the work centers are made operational for the deployment.	See Decomposition			Augmentee Control Module, Status Collection Module, IDO
A0.4	Arrange for Transportation	Assigned Transport	Using the DSOE as the guideline, the on-base transportation requirements are scheduled and contracted if necessary.	See Decomposition			On Base Transportation Control
A0.5	Deploy Resources	Transport Request	Throughout the preparation and processing of deployment resources, requests may be sent to transportation to move resources from one location to another.	See Decomposition			Deployment Modules, Personnel
		Deployed Resources	Once all the resources are prepared at their unit and processed through the work centers, they are transported off the base to their designated location and are now considered deployed resources.				Deployment Modules, Personnel



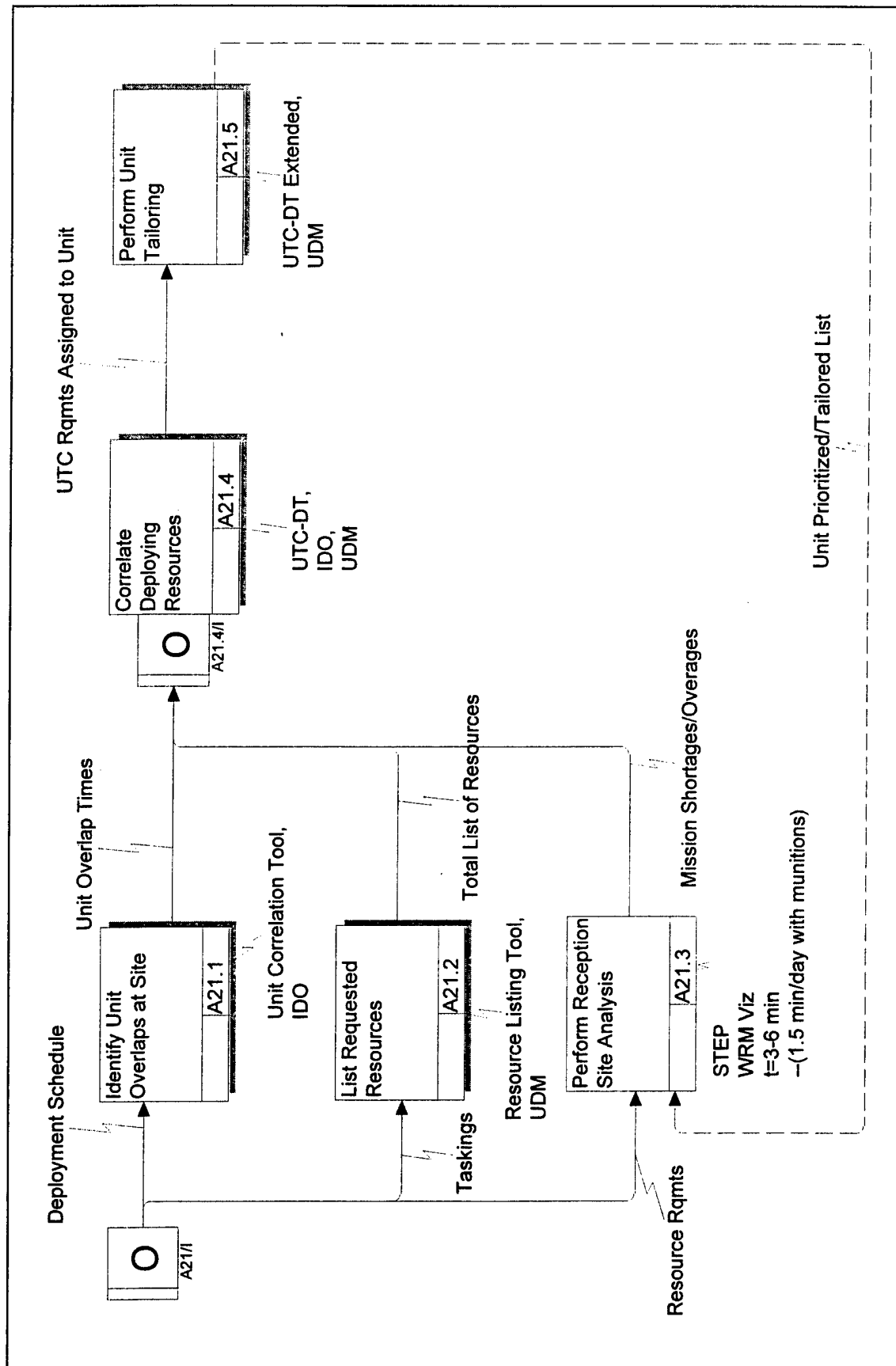
A0: Deploy for Contingency

<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A2.1	Compute Deployment Requirements	Tailored List	Knowing the standards specified for a UTC, the resources available at the reception site, the environmental conditions at the reception site, and the requirement insights gained from previous deployments, the deployment requirements are computed based on the mission requirements.	See Decomposition			Deployment Requirements Modules, UDM, IDO
A2.2	Translate to Airlift	Requested Airlift	Knowing the tailored requirements, the most appropriate airlift is computed and a request is generated.	See Decomposition			Airlift Computation Module, Log Planner
A2.3	Define Chalks	Load Plan	Knowing either the requested airlift, or the official airflow, a load plan is generated for each chalk, based on the tailored deployment requirements and the priority of the resource movements.	See Decomposition			Increment Analysis Module, Load Plan Module, Load Planner
A2.4	Evaluate Personnel & Equip Qualifications	Processing Requirements	Once the specific equipment and personnel are assigned to meet the deployment requirements, the CDF and PDF processing requirements are computed based on the status of the resources.	See Decomposition			Deployment Resource Module, UDM
A2.5	Develop Deployment Schedule	DSOE	Knowing the specific resources assigned to the deployment and the processing requirements, a deployment schedule of events is computed to ensure all milestones are met and the chalk departs the base in a timely manner and according to the airlift schedule.	See Decomposition			DSOE Module, Personnel



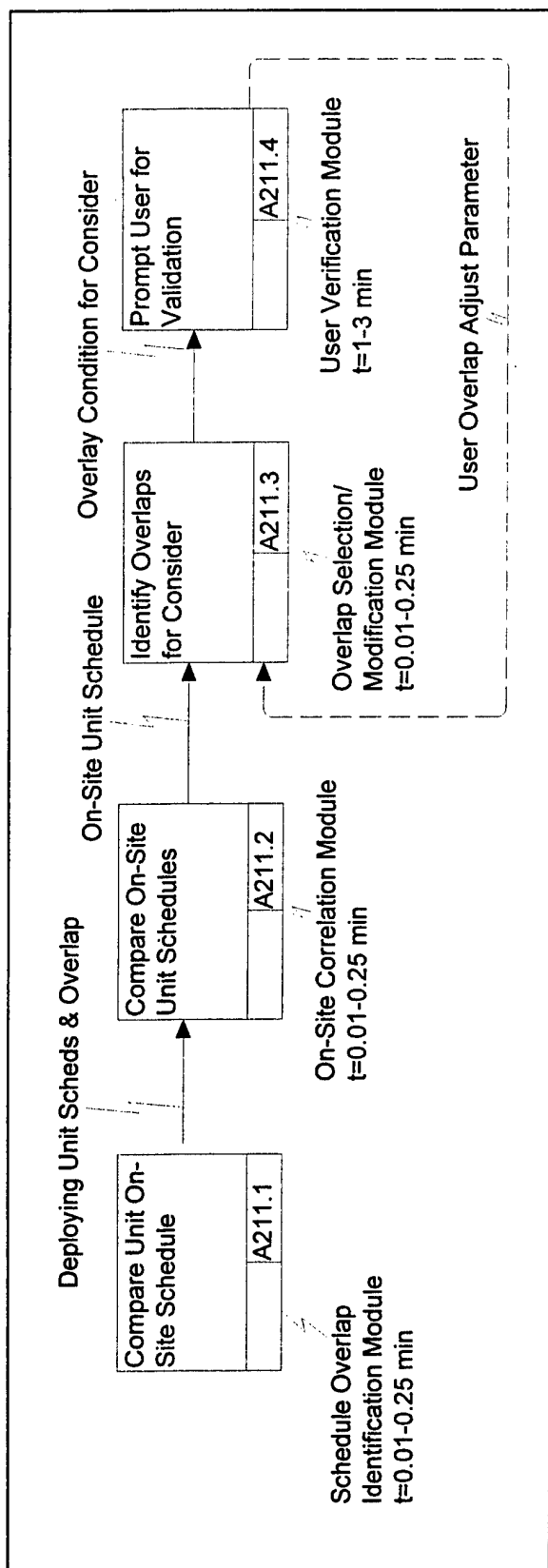
A2: Execute Activation Process

<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A21.1	Identify Unit Overlaps at Site	Unit Overlap Times	The various units' deployment schedules are overlaid on each other to identify any units that have a common time at the same location.	See Decomposition			Unit Correlation Tool, IDO
A21.2	List Requested Resources	Total List of Resources	The standard UTC is modified for any fragmenting requirements or LOIs from the MAJCOM.	See Decomposition			Resource Listing Tool, UDM
A21.3	Perform Reception Site Analysis	Mission Shortages/Overages	A mission analysis is performed based on those resources at the reception site and those scheduled for deployment to identify any mission shortages or overages that must be compensated for in the deployed resources.	min 3 mean 4 max 6			STEP, WRM Viz
A21.4	Correlate Deploying Resources	UTC Requirements Assigned to Unit	For any resources that will be shared among units, one unit must be assigned primary responsibility for that resource.	See Decomposition			UTC-DT, IDO, UDM
A21.5	Perform Unit Tailoring	Unit's Prioritized & Tailored List	All final tailoring is performed to adjust to re-supply capabilities, environmental conditions, and historical usage of the deployed UTC.	See Decomposition			UTC-DT Extended, UDM



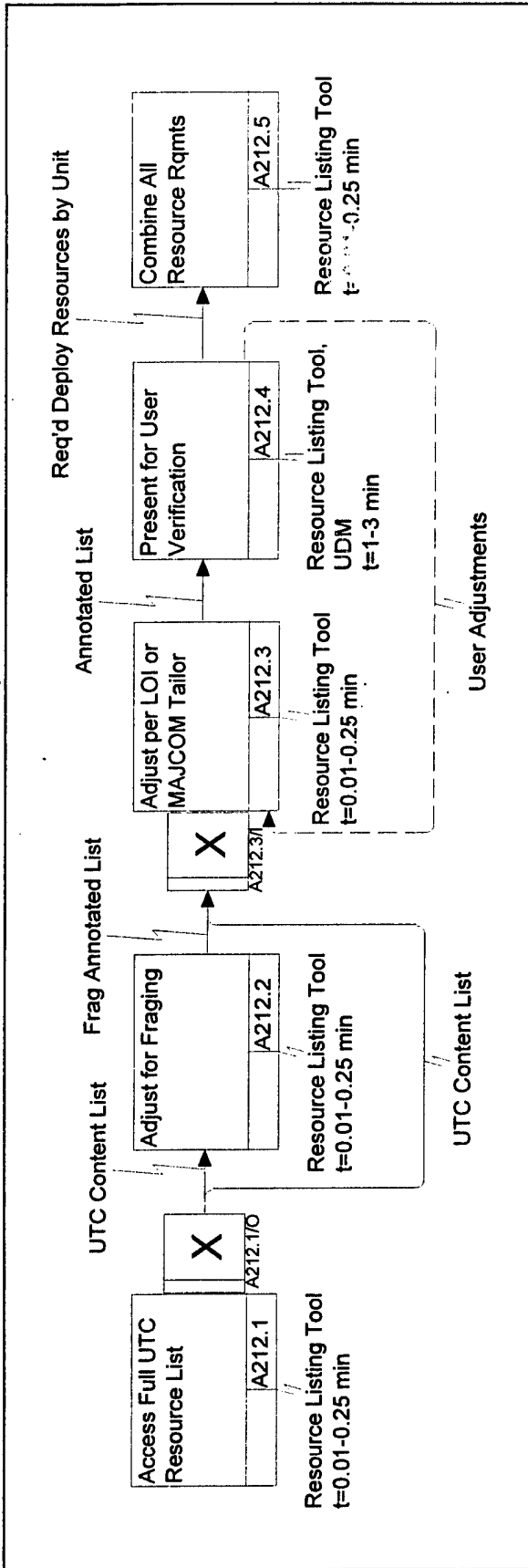
A21: Compute Deployment Requirements

<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A211.1	Compare Deploying Unit On-Site Schedules	Deploying Unit Schedules & Overlaps	An analysis is performed to identify any correlation with the tasked unit's deployment schedule and those units currently at the deployed location.	min 0.0 mean 0.1 max 0.25			Schedule Overlap Identification Module
A211.2	Compare On-Site Schedules	On-Site Unit Schedule	An analysis is performed to identify a correlation with all the units tasked to deploy to the same location.	min 0.01 mean 0.1 max 0.25			On-Site Correlation Module
A211.3	Identify Overlaps for Consideration	Overlay Condition for Consideration	The system identifies whether there are any conditions in which the units overlap times could be used to tailor the deployment requirements.	min 0.01 mean 0.1 max 0.25			Overlap Selection/Modification Module
A211.4	Prompt User for Validation	User Overlap Adjustment Parameter	The user evaluates the recommendation for potential sharing among the units and adjusts the annotation.	min 1 mean 2 max 3			User Verification Module
		Selected Unit Overlap Times	The user approves the selected unit overlap times that can be used to identify where resources may be shared and where resources can be tailored.				User Verification Module



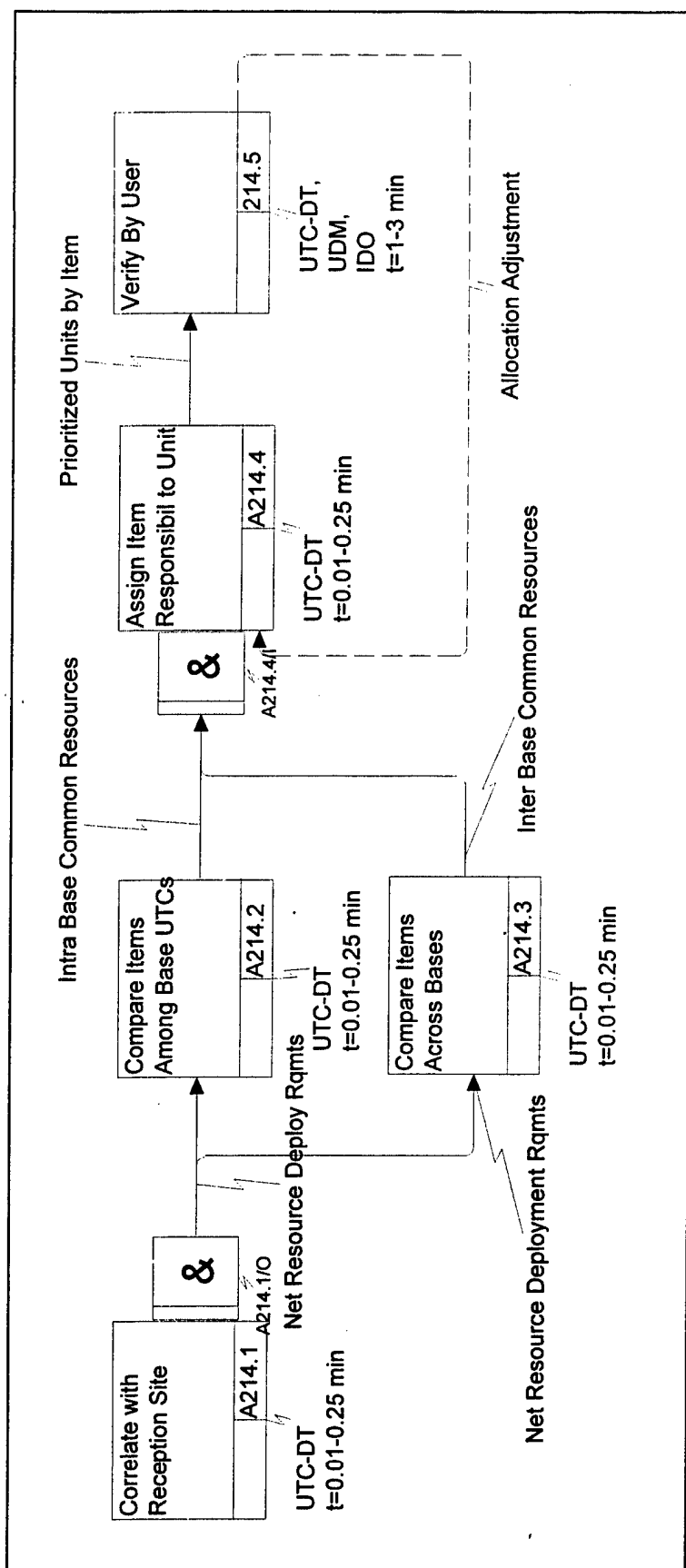
A211: ID Unit Overlaps at Site

<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A212.1	Access Full UTC Resource List	UTC Content List	The full list of resources in the standard UTC is identified.	min 0.01 mean 0.1 max 0.25			Resource Listing Tool
A212.2	Adjust for Fragmenting	Fragment Annotated List	The full UTC is tailored according to any tasking fragmentation requirements.	min 0.01 mean 0.1 max 0.25			Resource Listing Tool
A212.3	Adjust Per LOI Instructions or MAJCOM Tailoring	Annotated List	The list of resources in the UTC is further tailored according to LOI requirements and any tailoring required by the MAJCOM.	min 0.01 mean 0.1 max 0.25			Resource Listing Tool
A212.4	Present for User Verification	User Adjustments	The user reviews the annotated list and makes adjustments as necessary to reflect decision logic not incorporated in the decision support system.	min 1 mean 2 max 3			Resource Listing Tool
		Requested Deployment Resources By Unit	The user approves the final list of resources required by his unit for the deployment tasking.				Resource Listing Tool, UDM
A212.5	Combine All Resource Requirements	Total List of Requested Deployment Resources	All the individual units' tailored lists are combined into a base list of resources for the deployment taskings.	min 0.01 mean 0.1 max 0.25			Resource Listing Tool, UDM

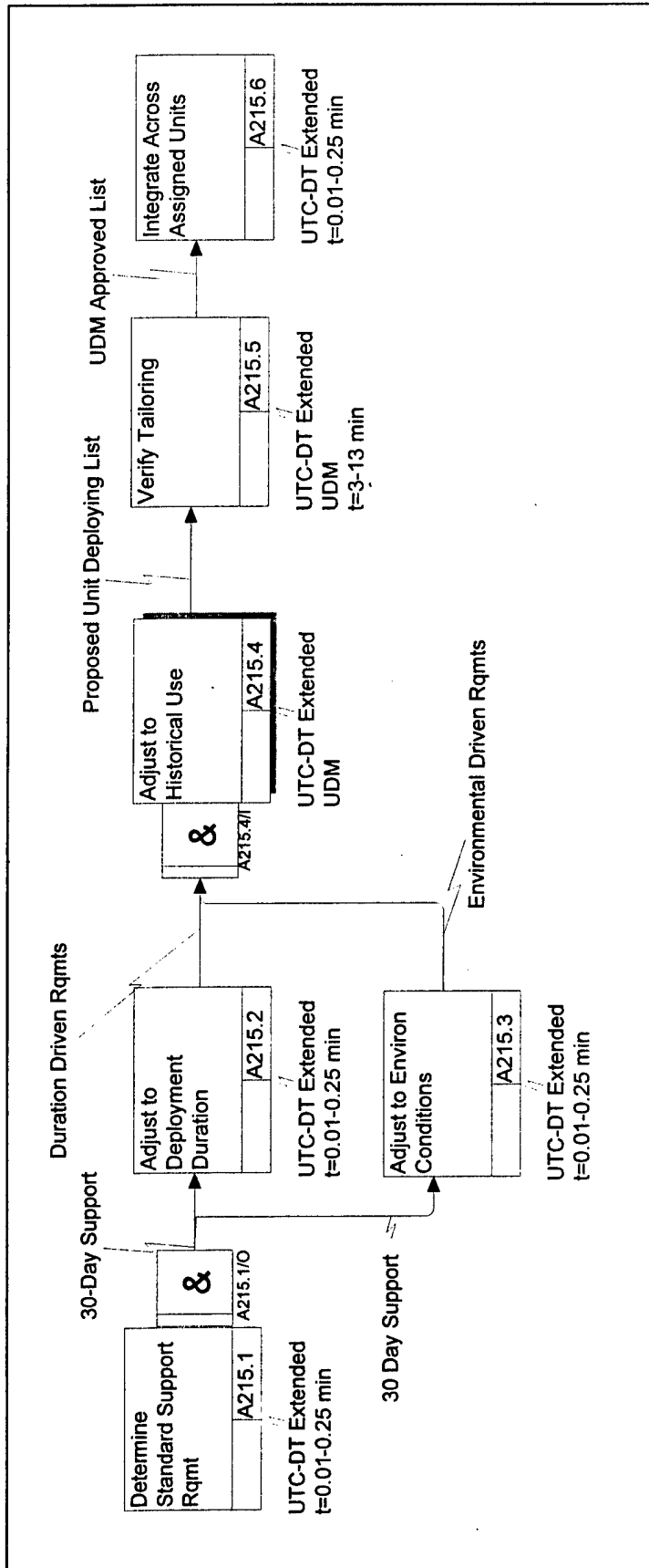


A212: List Requested Resources

<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A214.1	Correlate with Reception Site	Net Resources Deployment Requirements	A comparison is performed with those resources at the reception site that are available for use during the deployment.	min 0.01 mean 0.1 max 0.25			UTC-DT
A214.2	Compare Items Among Base UTCs	Intra Base Common Resources	A comparison is performed among the UTCs from this base that are deploying to the same location.	min 0.01 mean 0.1 max 0.25			UTC-DT
A214.3	Compare Items Across Bases	Inter Base Common Resources	A comparison is performed among UTCs from different bases that are deploying to the same location.	min 0.01 mean 0.1 max 0.25			UTC-DT
A214.4	Assign Item Responsibility to Unit	Prioritized Unit By Item	The system identifies a unit of responsibility for coordination among UTCs with common resources. The system provides phone numbers and POCs for each unit.	min 0.01 mean 0.1 max 0.25			UTC-DT
A214.5	Verify By User	Allocation Adjustment	The responsible organization contacts the other designated units and coordinates any possibility of sharing resources.	min 1 mean 2 max 3			UTC-DT UDM IDO
		UTC Deployment Requirements Assigned to Unit	The list of resources needed for deployment by each unit, based on coordination and sharing at the deployed location, is generated.				UTC-DT UDM IDO

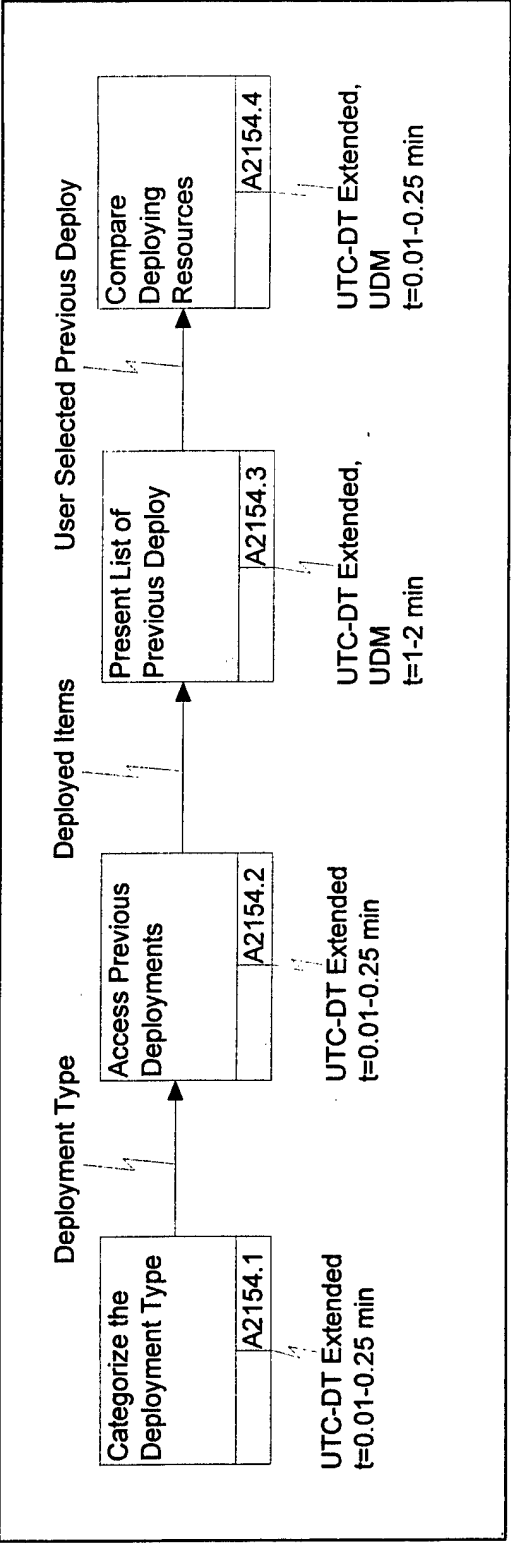


<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A215.1	Determine Standard Support Requirement	30-Day Support	Using the list of resources coordinated among the units deploying, the standard list of 30 days of supply for the resources is generated.	min 0.01 mean 0.1 max 0.25			UTC-DT Extended
A215.2	Adjust to Deployment Duration	Duration Driven Requirements	The list of resources for a 30-day supply is adjusted based on the deployment schedule, if less than 30 days, and the re-supply capabilities at the reception site.	min 0.01 mean 0.1 max 0.25			UTC-DT Extended
A215.3	Adjust to Environmental Conditions	Environmental Driven Requirements	The list of resources to deploy is adjusted based on the environment of the reception site.	min 0.01 mean 0.1 max 0.25			UTC-DT Extended
A215.4	Adjust to Historical Use	Proposed Unit Deploying List	Based on past history of deploying the UTC to similar environmental conditions with a similar mission requirement, the UTC is further tailored by the unit.	See Decomposition			UTC-DT Extended UDM
A215.5	Verify Tailoring	UDM Approved List	The unit deployment manager reviews the tailored list and makes some final adjustments to the deployment requirements.	min 3 mean 4 max 13			UTC-DT Extended UDM
A215.6	Integrate Across Assigned Units	Unit's Prioritized & Tailored AFSC & Materials List	An integration of all the units' resource lists within a base is performed and ordered by deployment priority.	min 0.01 mean 0.1 max 0.25			UTC-DT Extended



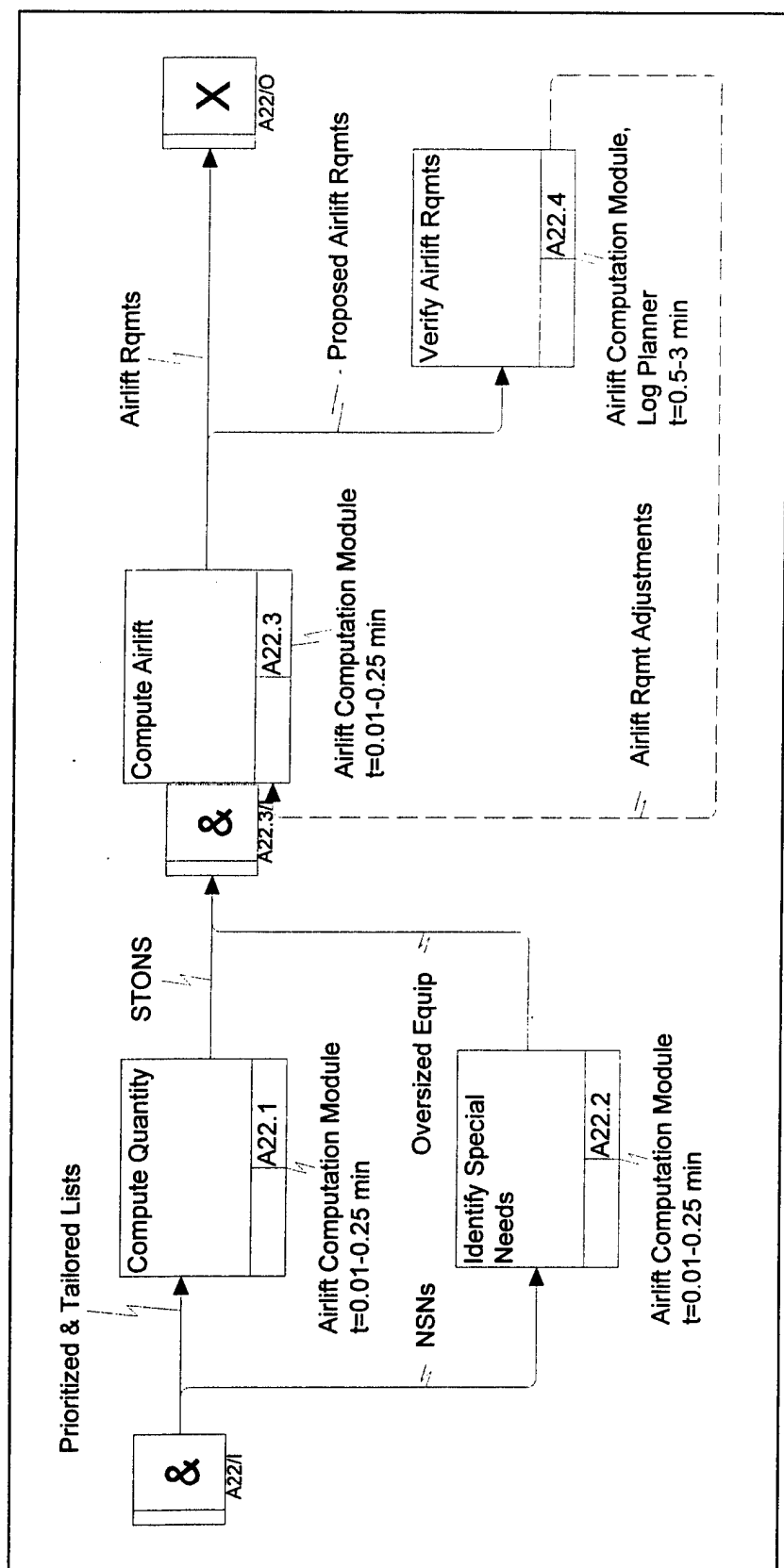
A215: Perform Unit Tailoring

<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A2154.1	Categorize the Deployment Type	Deployment Type	The deployment requirements are analyzed, and the type of deployment is categorized.	min 0.01 mean 0.1 max 0.25			UTC-DT Extended
A2154.2	Access Previous Deployments	Deployment Items	Any previous deployment of the same or similar UTCs with the same deployment type as the current tasking is identified.	min 0.01 mean 0.1 max 0.25			UTC-DT Extended
A2154.3	Present List of Selected Previous Deployments	User Selected Previous Deployment	The user reviews the list of similar previous deployments and selects one that can be used to influence the tailoring of the current tasking.	min 1 mean 1.5 max 2			UTC-DT Extended, UDM
A2154.4	Compare Deploying Resources	Proposed Unit Deploying List	The resources are tailored based on past deployment history, and the user approves and accepts the choices.	min 0.01 mean 0.1 max 0.25			UTC-DT Extended, UDM



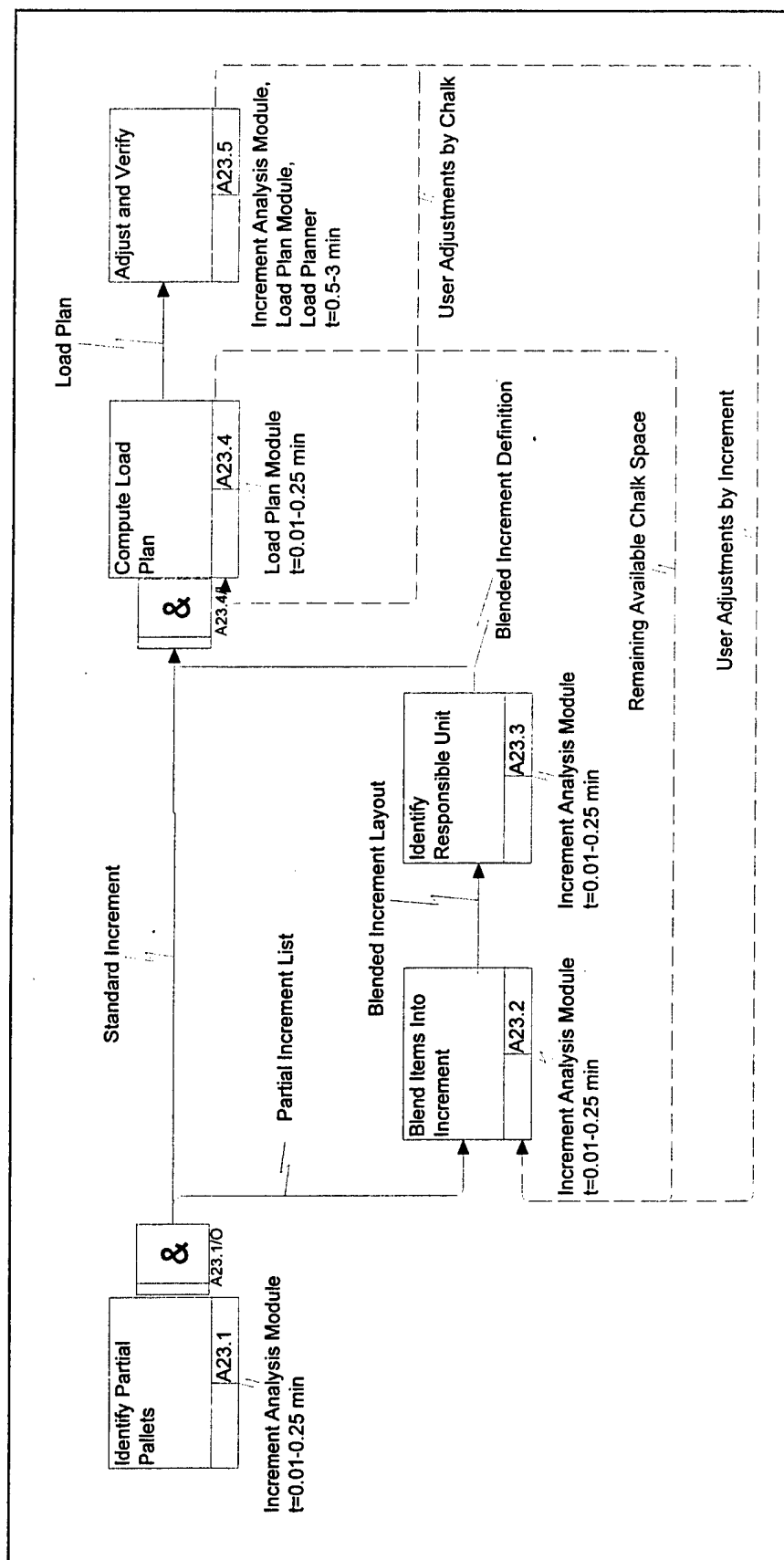
A2154: Adjust to Historical Use

<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A22.1	Compute Quantity	STONS	Based on the tailored list of resources, the total number of short tons is computed for the UTC.	min 0.01 mean 0.1 max 0.25			Airlift Computation Module
A22.2	Identify Special Needs	Oversized Equipment	Any equipment that has special transportation requirements is identified.	min 0.01 mean 0.1 max 0.25			Airlift Computation Module
A22.3	Compute Airlift	Airlift Requirements	Once the user has approved the proposed airlift, a request is sent to TRANSOM.	min 0.01 mean 0.1 max 0.25			Airlift Computation Module
		Proposed Airlift Requirements	Knowing the weight of the resources, the unique transportation requirements, and the priority, a recommendation is created for the required airlift.				Airlift Computation Module
A22.4	Verify Airlift Requirements	Airlift Requirement Adjustments	The user reviews the system recommendation for the airlift and makes some adjustments.	min 0.5 mean 1.5 max 3			Airlift Computation Module Log Planner

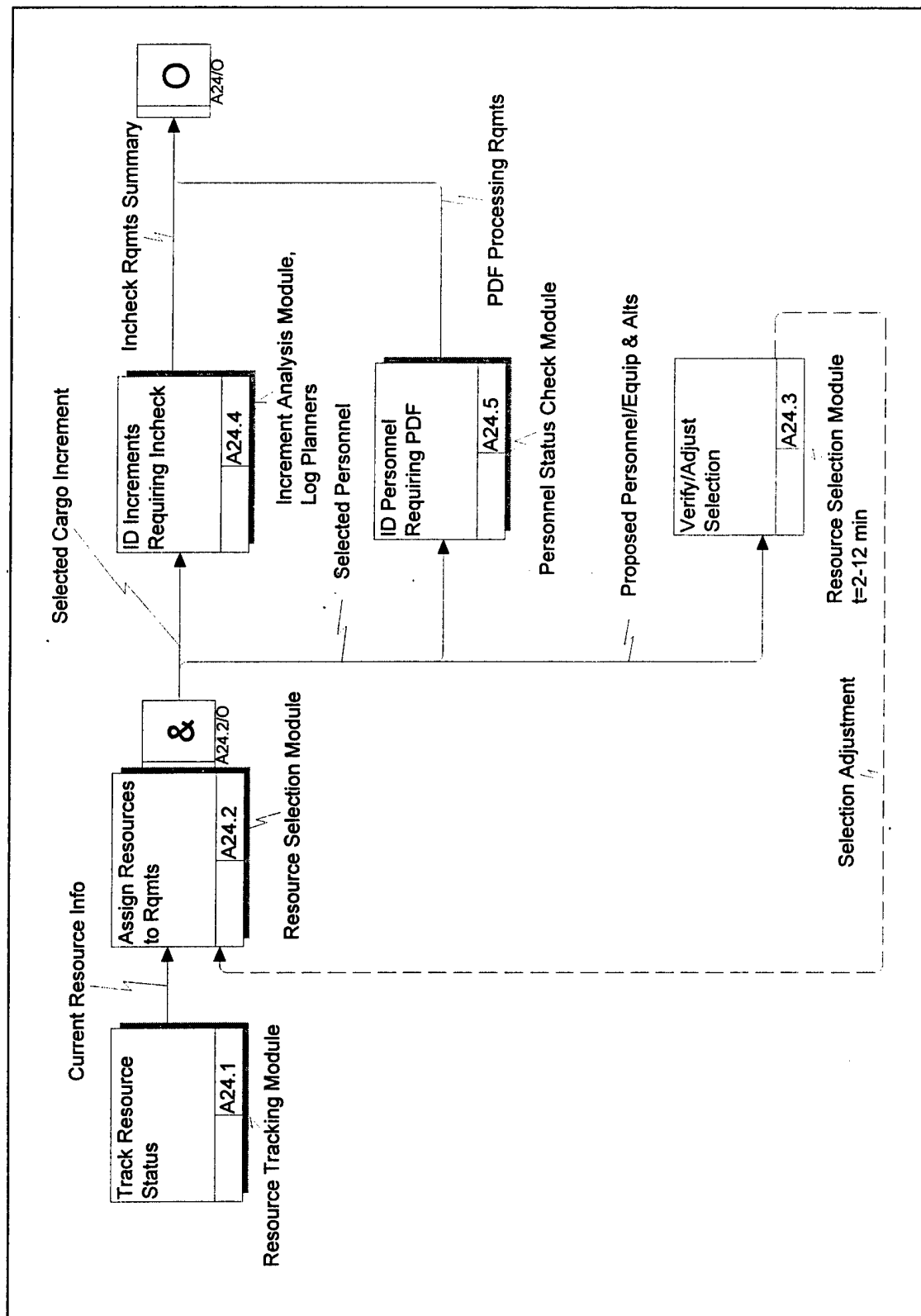


A22: Translate to Airlift

Node Number	Process Name	Output/Product	Description	Time to Complete (in minutes)	Frequency of Occurrence	Exceptions/ Rules Variation Factors	Resource
A23.1	Identify Partial Pallets	Standard Increment	A review of the resource list identifies those increments that still have full increments.	min 0.01 mean 0.1 max 0.25			Increment Analysis Module
		Partial Increment List	A review of the resource list identifies those increments that have been tailored and are not completely full.				Increment Analysis Module
A23.2	Blend Items Into Increment	Blended Increment Layout	A review of the partial increments identifies those that can be consolidated into complete increments.	min 0.01 mean 0.1 max 0.25			Increment Analysis Module
A23.3	Identify Responsible Unit	Blended Increment Definition	When the recommendation to consolidate increments is created for increments from different units, the system identifies a unit to maintain responsibility for combining and packing. The responsibility for developing and processing the increment is with the unit owning those highest priority elements.	min 0.01 mean 0.1 max 0.25			Increment Analysis Module
A22.4	Compute Load Plan	Load Plan	Sequencing the increments by priority, a load plan is generated in accordance with the loading standards of the assigned aircraft.	min 0.01 mean 0.1 max 0.25			Load Plan Module
		Remaining Available Chalk Space	During the load planning generation, some space may remain on the aircraft that is not totally utilized. This will trigger a search for an increment that could be used to fully utilize the aircraft space.				Load Plan Module
A22.5	Adjust and Verify	User Adjustments by Chalk	The user reviews the load plans and may adjust it based on his skill and understanding.	min 0.5 mean 1.5 max 3			Increment Analysis Module, Load Plan Module, Load Planner
		User Adjustments by Increment	The user reviews the pallet combination recommendation and may adjust it based on his knowledge and skill of the situation.				Increment Analysis Module, Load Plan Module, Load Planner

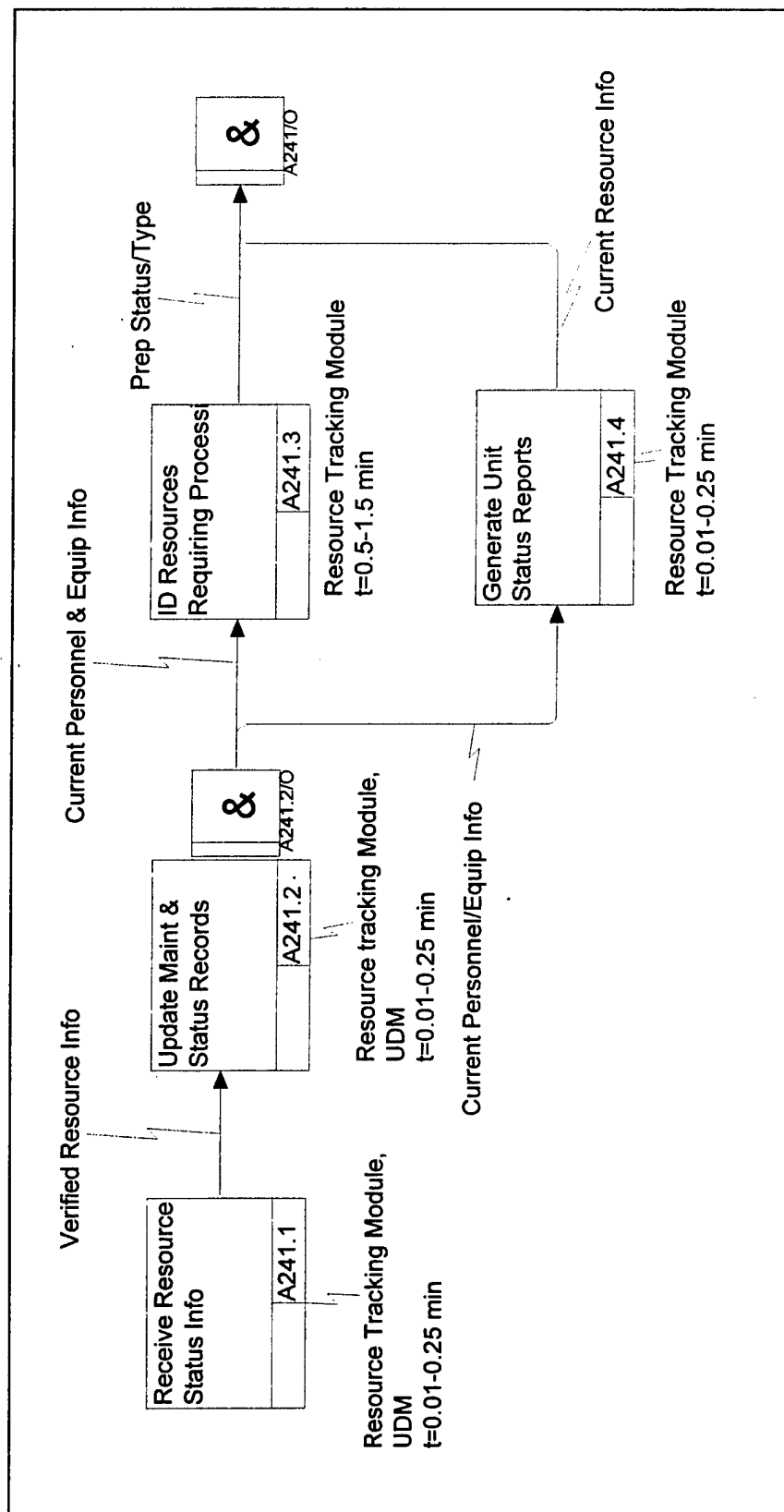


Node Number	Process Name	Output/Product	Description	Time to Complete (in minutes)	Frequency of Occurrence	Exceptions/ Rules Variation Factors	Resource
A24.1	Track Resource Status	Current Resource Information	The status of maintenance and personnel records for deployable resources is tracked and updated as changes occur.	See Decomposition			Resource Tracking Module
A24.2	Assign Resources to Requirements	Selected Cargo Increment	After a review of the current status and maintenance of resources and the current deployment requirements, specific pieces of equipment are identified to satisfy those cargo requirements and the user adjustments finalize the list.	See Decomposition			Resource Selection Module
		Selected Personnel	After a review of the current status of the personnel, the specific names are identified to satisfy the personnel requirements, and the user adjustments finalize the list.				Resource Selection Module
		Proposed Personnel/ Equipment & Alternates	A selection is made by the system of the specific people and equipment to satisfy the resource requirements.				Resource Selection Module
A24.3	Verify/Adjust Selection	Selection Adjustment	The user reviews the selection of equipment and personnel and makes some adjustments to the selections.	min 2 mean 8 max 12			Resource Selection Module, UDM
A24.4	Identify Increments Requiring In-Check	In-check Requirements Summary	A review is performed for each increment to decide whether it should be processed through the in-check work center.	See Decomposition			Increment Analysis Module, Log Planner
A24.5	Identify Personnel Requiring PDF	PDF Processing Requirements	The personal information for each person is reviewed to identify whether the individual must be processed through the PDF.	See Decomposition			Personnel Status Check Module



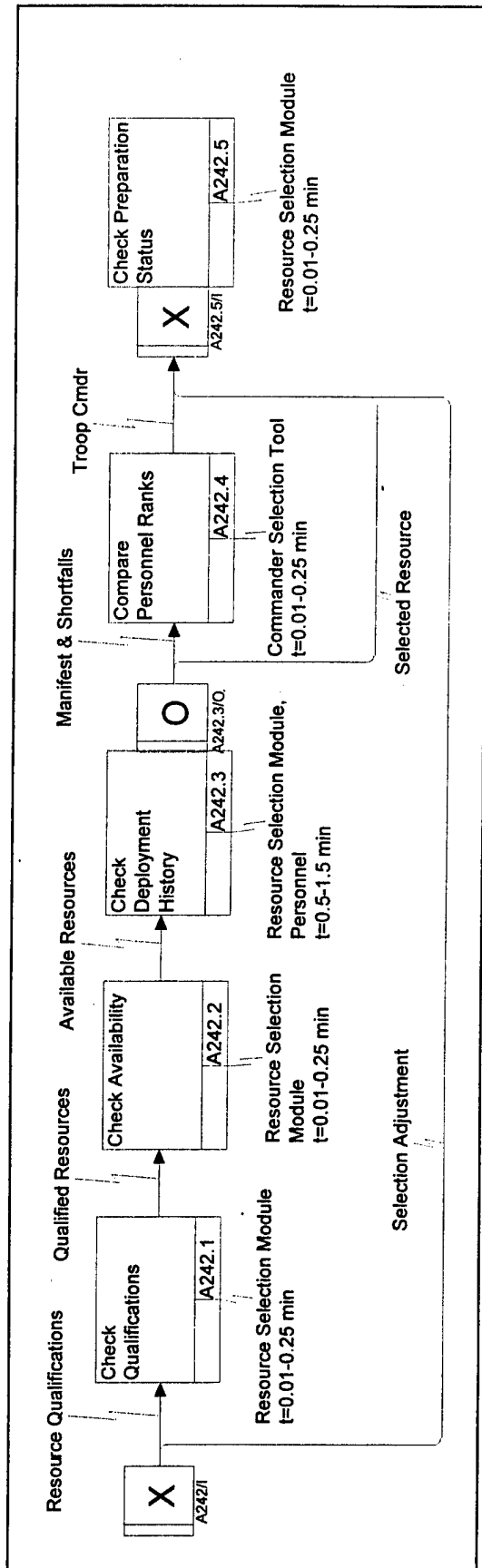
A24: Evaluate Personnel/Equipment Qualifications

<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A241.1	Receive Resource Status Information	Verified Resource Information	The database is searched for all current information about the resource.	min 0.01 mean 0.1 max 0.25			Resource Tracking Module, UDM
A241.2	Update the Maintenance & Status Records	Current Personnel & Equip Information	Any changes are documented about the resource, and the system is considered current.	min 0.01 mean 0.1 max 0.25			Resource Tracking Module
A241.3	Identify Resources Requiring Deployment Processing	Preparation Status/Type	Any processing requirements such as HazMat material, personnel records, and shot records that are not current are identified.	min 0.5 mean 1 max 1.5			Resource Tracking Module
A241.4	Generate Unit Status Reports	Current Resource Information	All current information about a resource is consolidated.	min 0.01 mean 0.1 max 0.25			Resource Tracking Module



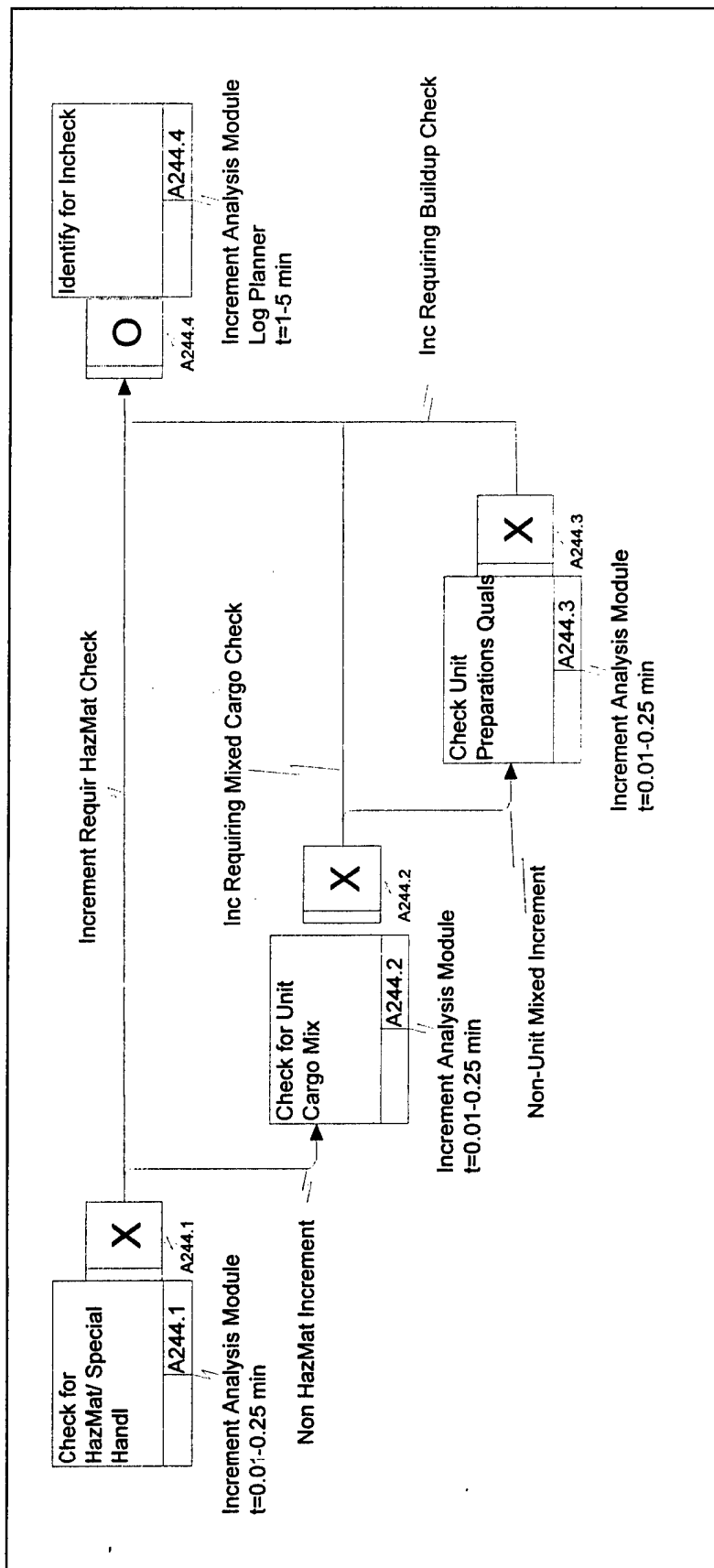
A241: Track Resource Status

<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A242.1	Check Qualifications	Qualified Resources	The qualifications for each resource are compared against those stated in the deployment requirements.	min 0.01 mean 0.1 max 0.25			Resource Selection Module
A242.2	Check Availability	Available Resources	The availability of each resource during the deployment requirements time frame is analyzed.	min 0.01 mean 0.1 max 0.25			Resource Selection Module
A242.3	Check Deployment History	Manifest & Shortfalls	The deployment history for each resource is analyzed to ensure it is not deployed too close to the previous deployment, if possible. The manifest of those selected for deployment is generated. If any of this analysis results in the exclusion of a resource that cannot be replaced by another within the base, a shortfall is generated.	min 0.5 mean 1 max 1.5			Resource Selection Module Personnel
		Selected Resources	The identification of each resource selected for the deployment is documented.				Resource Selection Module
A242.4	Compare Personnel Ranks	Troop Commander	A troop commander is selected among the personnel selected for the deployment.	min 0.01 mean 0.1 max 0.25			Commander Selection Tool
A242.5	Check Preparation Status	Assignment Status	The assignment of each resource to the deployment is used to update their status/maintenance records.	min 0.01 mean 0.1 max 0.25			Resource Selection Module



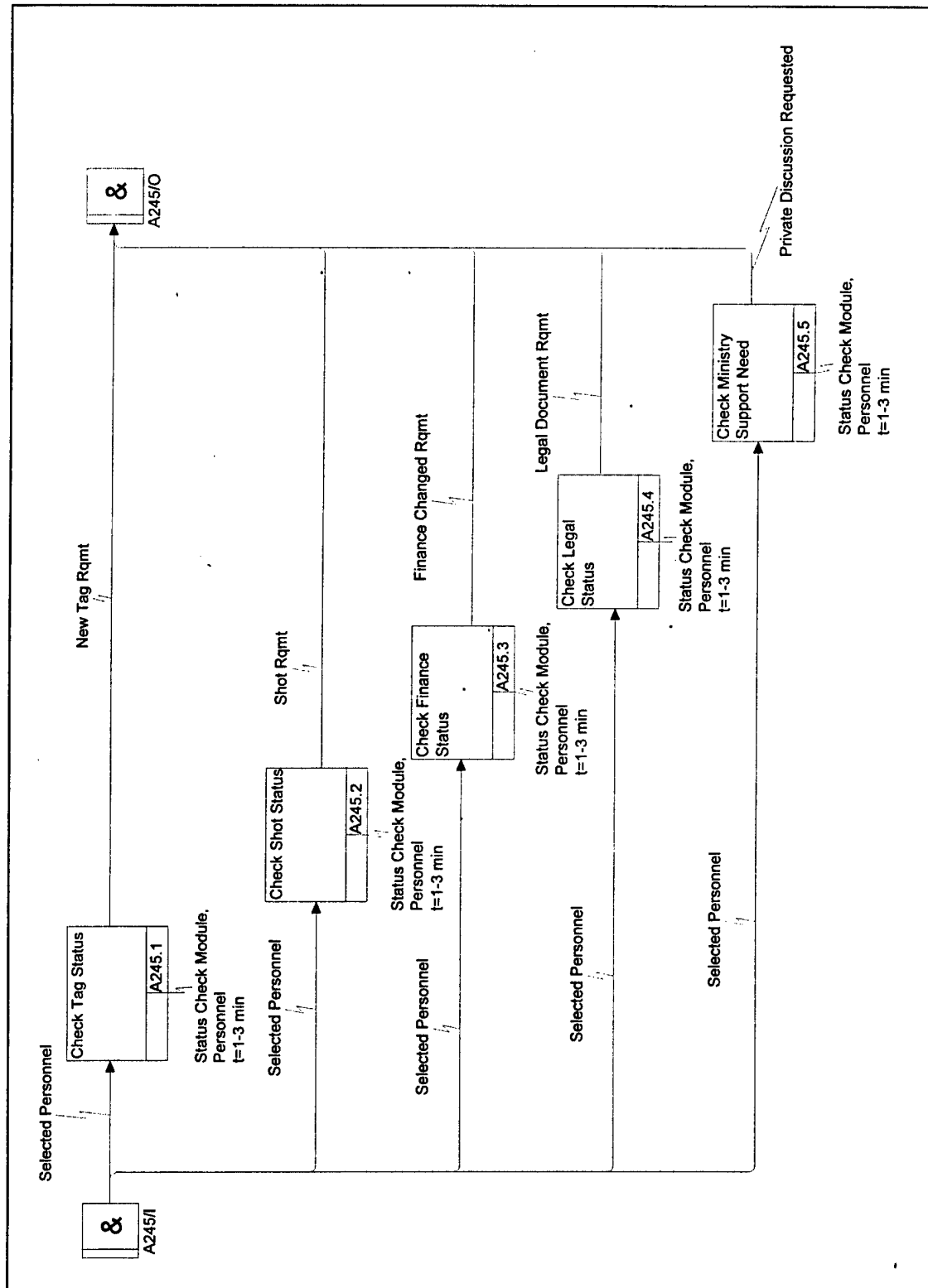
A242: Assign Resources to Requirements

<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A244.1	Check for HazMat & Special Handling	Increment Requiring HazMat Check	All the selected cargo increments are analyzed to identify those that contain HazMat.	min 0.01 mean 0.1 max 0.25	HazMat must process through in-check		Increment Analysis Module
		Non-HazMat Increment	The increments are analyzed to identify those that do not contain HazMat.				Increment Analysis Module
A244.2	Check for Unit Cargo Mix	Increment Requiring Mixed Cargo Check	The increments that do not contain HazMat are analyzed to determine if two or more units contain cargo on the increment.	min 0.01 mean 0.1 max 0.25	Mixed cargo must process through in-check		Increment Analysis Module
		Non-Unit Mixed Increment	The non-HazMat increments are analyzed for those that have cargo from only one unit.				Increment Analysis Module
A244.3	Check Unit Preparation Qualifications	Increment Requiring Buildup Check	For non-mixed unit cargo and non- HazMat increments, the preparation history of the unit is analyzed.	min 0.01 mean 0.1 max 0.25	10% must process through in-check		Increment Analysis Module
A244.4	Identify for In-check	In-check Requirements Summary	Increments are marked as those requiring in-check through the CDF, such as those with HazMat, those with cargo from multiple units, those with unit preparation history not at 100%, and random checks on units.	min 1 mean 3 max 5			Increment Analysis Module Log Planners



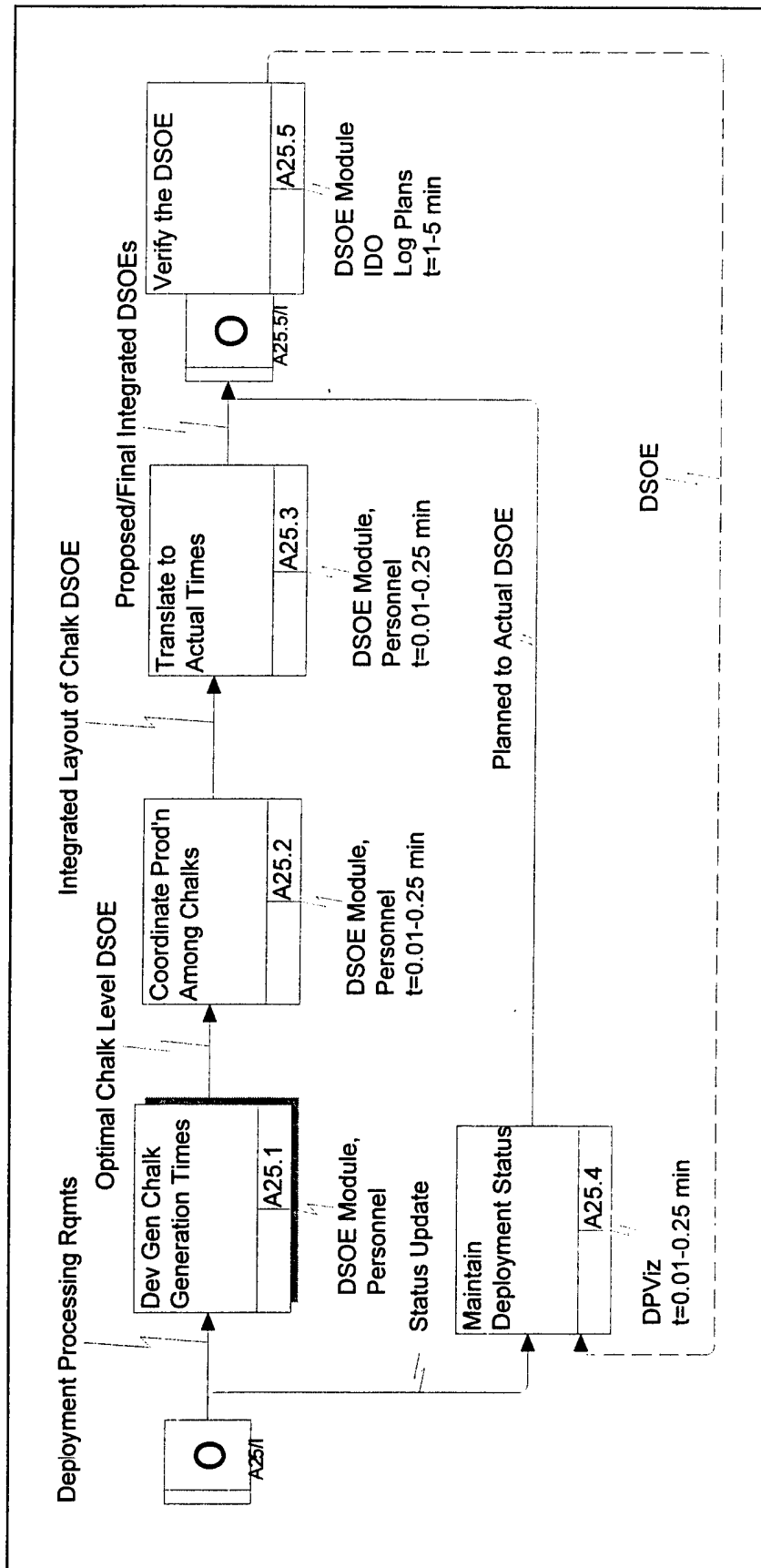
A244: Identify Increments Requiring In-Check

<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A245.1	Check Tag Status	New Tag Requirement	Each personnel file is reviewed to determine if the individual needs a new ID tag at the PDF.	min 1 mean 2 max 3			Status Check Module, Personnel
A245.2	Check Shot Status	Shot Requirement	Each person's medical file is reviewed to determine if any shots are required at the PDF, whether normal frequency or those required by the deployment.	min 1 mean 2 max 3			Status Check Module, Personnel
A245.3	Check Finance Status	Finance Changed Requirement	The financial information for each individual is evaluated to determine if financial support is required at the PDF.	min 1 mean 2 max 3			Status Check Module, Personnel
A245.4	Check Legal Status	Legal Document Requirement	The legal information for each person is reviewed to determine if any legal actions are required at the PDF.	min 1 mean 2 max 3			Status Check Module, Personnel
A245.5	Check Ministry Support Need	Private Discussion Required	When the person is notified of the deployment, he indicates if he needs to consult with a chaplain at the PDF.	min 1 mean 2 max 3			Status Check Module, Personnel



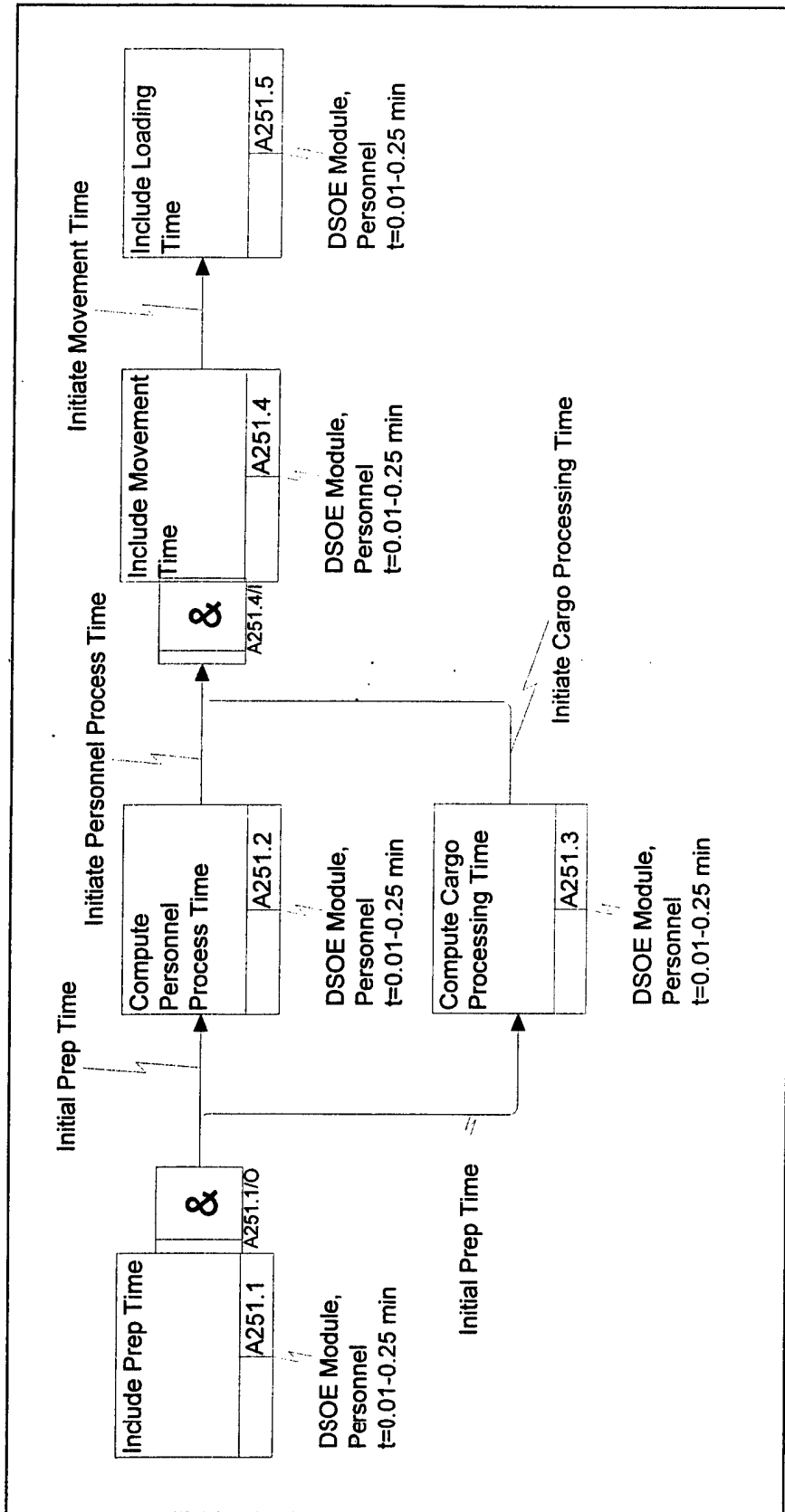
A245: Identify Personnel Requiring PDF

Node Number	Process Name	Output/Product	Description	Time to Complete (in minutes)	Frequency of Occurrence	Exceptions/ Rules Variation Factors	Resource
A25.1	Develop Generic Chalk Generation Times	Optimal Chalk Level DSOE	A DSOE is created for each chalk, using duration times for each task.	See Decomposition			DSOE Module, Personnel
A25.2	Coordinate Production Among Chalks	Integrated Layout of Chalk DSOEs	The different DSOEs for each chalk are analyzed to ensure no conflicts with base resources among the chalks.	min 0.01 mean 0.1 max 0.25			DSOE Module, Personnel
A25.3	Translate to Actual Times	Proposed/Final Integrated DSOEs	Knowing the actual times for the airlifts, the DSOEs for each chalk are converted from durations to actual times.	min 0.01 mean 0.1 max 0.25			DSOE Module, Personnel
A25.4	Maintain Deployment Status	Planned to Actual DSOE	As the deployment progresses, actual times are recorded by the system.	min 0.01 mean 0.1 max 0.25			DPViz
A25.5	Verify the DSOE	DSOE	The IDO and UDM monitor the deployment progress. A mapping identifies any variations between planned and processing times. As variations exceed pre-established limits, the variations are highlighted and presented to the user for analysis/adjustment.	min 1 mean 3 max 5			DSOE Module IDO Log Plans



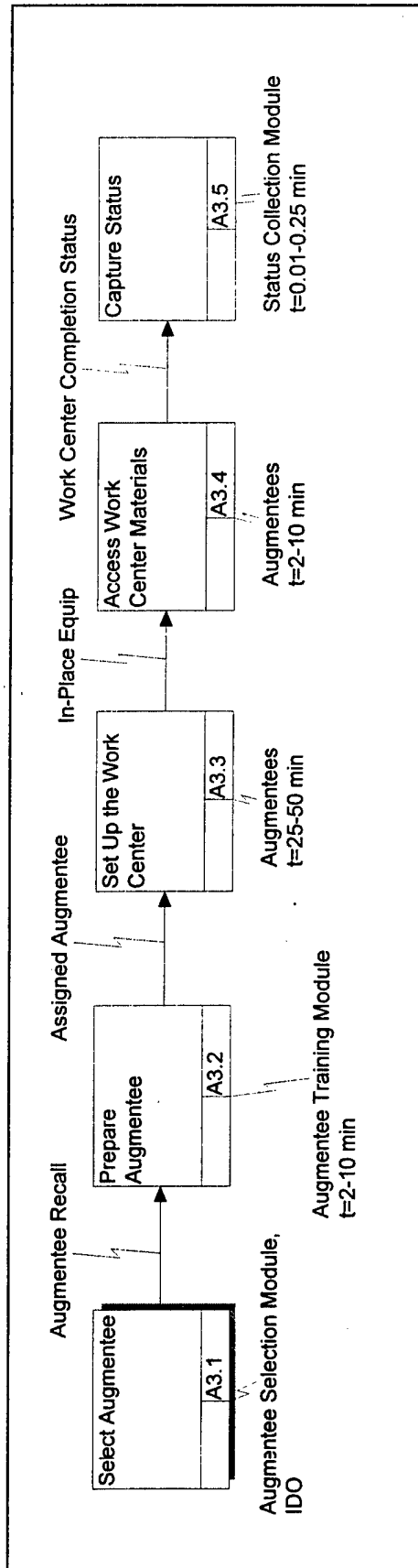
A25: Develop Deployment Schedule

<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A251.1	Include Preparation Time	Initial Preparation Time	The preparation time for each resource at the unit is computed.	min 0.01 mean 0.1 max 0.25			DSOE Module, Personnel
A251.2	Compute Personnel Processing Time	Initiate Personnel Processing Time	The time required to process the required personnel through the PDF is computed.	min 0.01 mean 0.1 max 0.25			DSOE Module, Personnel
A251.3	Compute Cargo Processing Time	Initiate Cargo Processing Time	The time required to process the selected cargo through the CDF is computed.	min 0.01 mean 0.1 max 0.25			DSOE Module, Personnel
A251.4	Include Movement Time	Initiate Movement Time	The cargo and personnel movement times are computed based on the location and length of the moves.	min 0.01 mean 0.1 max 0.25			DSOE Module, Personnel
A251.5	Include Loading time	Initiate Load Time	The length of the time to load the aircraft is computed.	min 0.01 mean 0.1 max 0.25			DSOE Module, Personnel



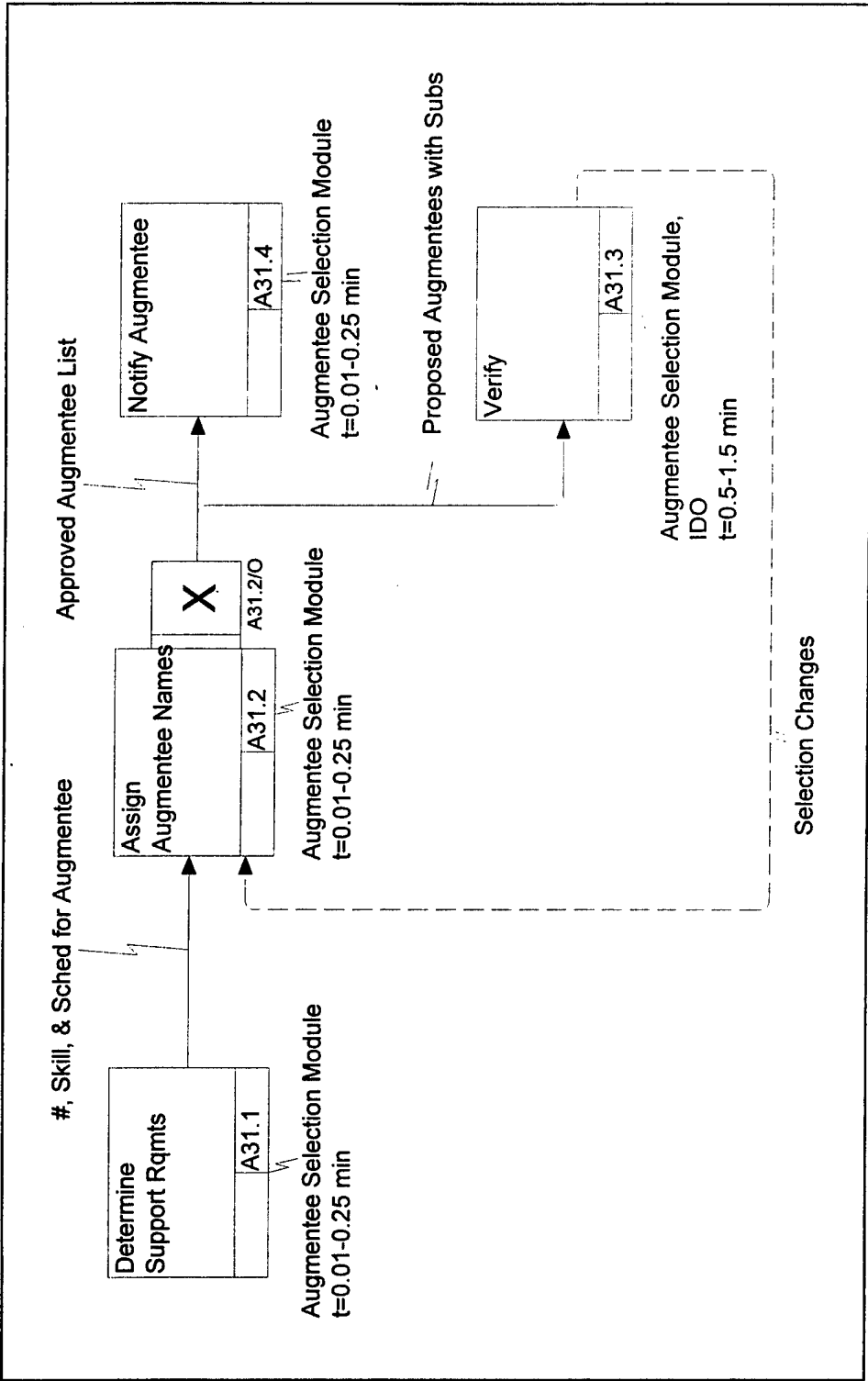
A251: Develop Generic Chalk Generation Times

<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A3.1	Select Augmentee	Augmentee Recall	The level and type of support is computed according to the DSOE and the resource processing requirements. The augmentees are notified to report for duty.	See Decomposition			Augmentee Selection Module, IDO
A3.2	Prepare Augmentee	Assigned Augmentee	As the augmentees arrive for duty, a review of their deployment experience identifies the training needed. They are provided the training and prepared for the deployment support task.	min 2 mean 5 max 10			Augmentee Training Module
A3.3	Set Up The Work Center	In-Place Equipment	The augmentees set up the deployment work centers.	min 25 mean 40 max 50			Augmentees
A3.4	Access the Work Center Materials	Work Center Completion Status	The augmentees obtain the materials needed to make the work centers operational.	min 2 mean 5 max 10			Augmentees
A3.5	Capture Status	Setup Status	The status of the work centers is recorded.	min 0.01 mean 0.1 max 0.25			Status Collection Module



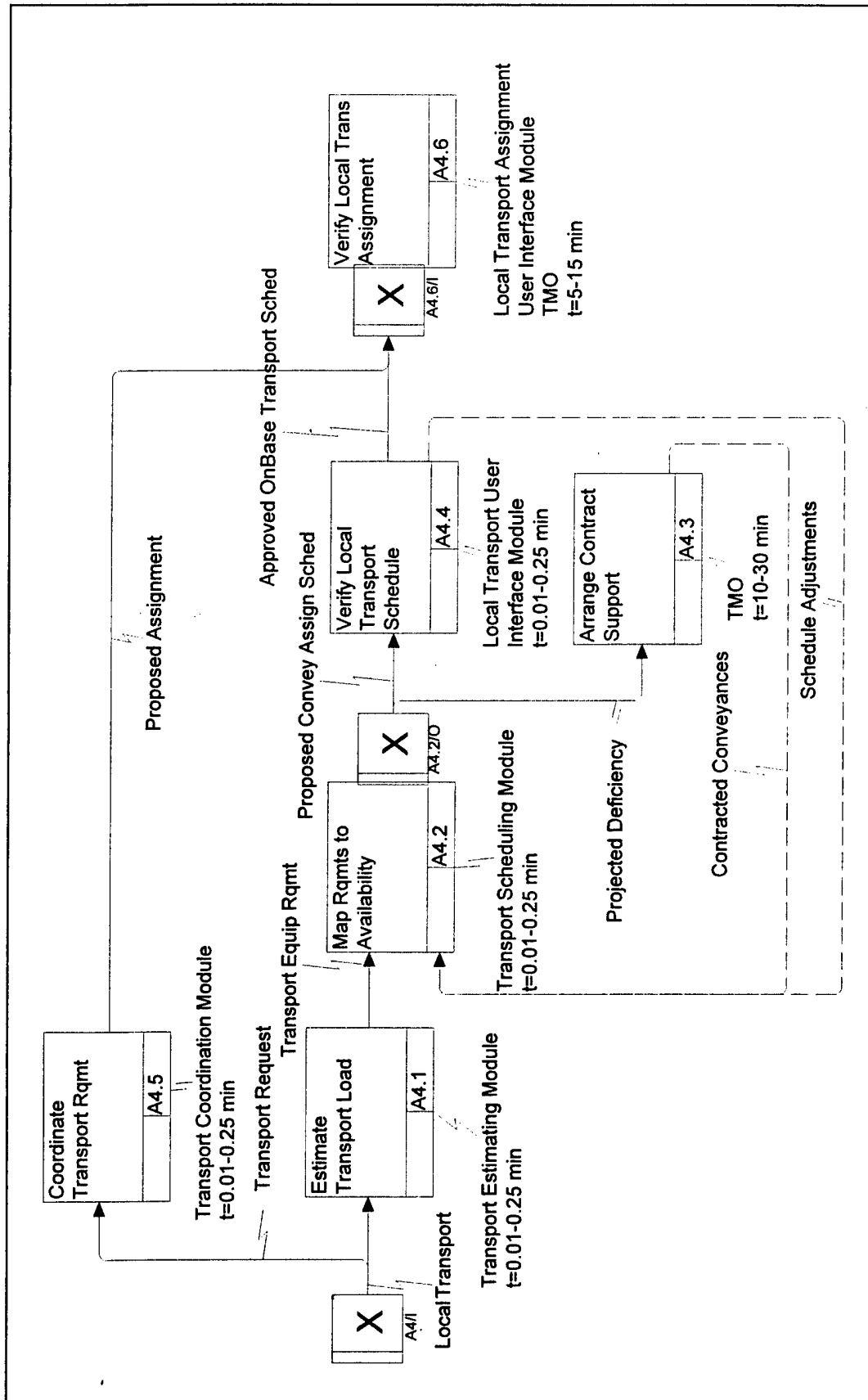
A3: Set Up Deployment Machine

<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A31.1	Determine Support Requirements	Number, Schedule & Skills for Augmentees	An analysis of the DSOE and the deployment process defines the number of augmentees required, their requirements schedule, and the skills required.	min 0.01 mean 0.1 max 0.25			Augmentee Selection Module
A31.2	Assign Augmentee Names	Proposed Augmentee Fill List with Substitutes	Mapping the requirements to the listing of augmentees identifies one or more individuals available to satisfy each requirement.	min 0.01 mean 0.1 max 0.25			Augmentee Selection Module
		Approved Augmentee List	The user makes final acceptance of the selection of the augmentee.				Augmentee Selection Module
A31.3	Verify	Selection Changes	The list is presented to the user who makes adjustments based on user known information.	min 0.5 mean 1 max 1.5			Augmentee Selection Module, IDO
A31.4	Notify Augmentee	Augmentee Recall	A notification is sent to the augmentee to inform them of when and where to report along with a minimal description of their planned responsibilities.	min 0.01 mean 0.1 max 0.25			Augmentee Selection Module



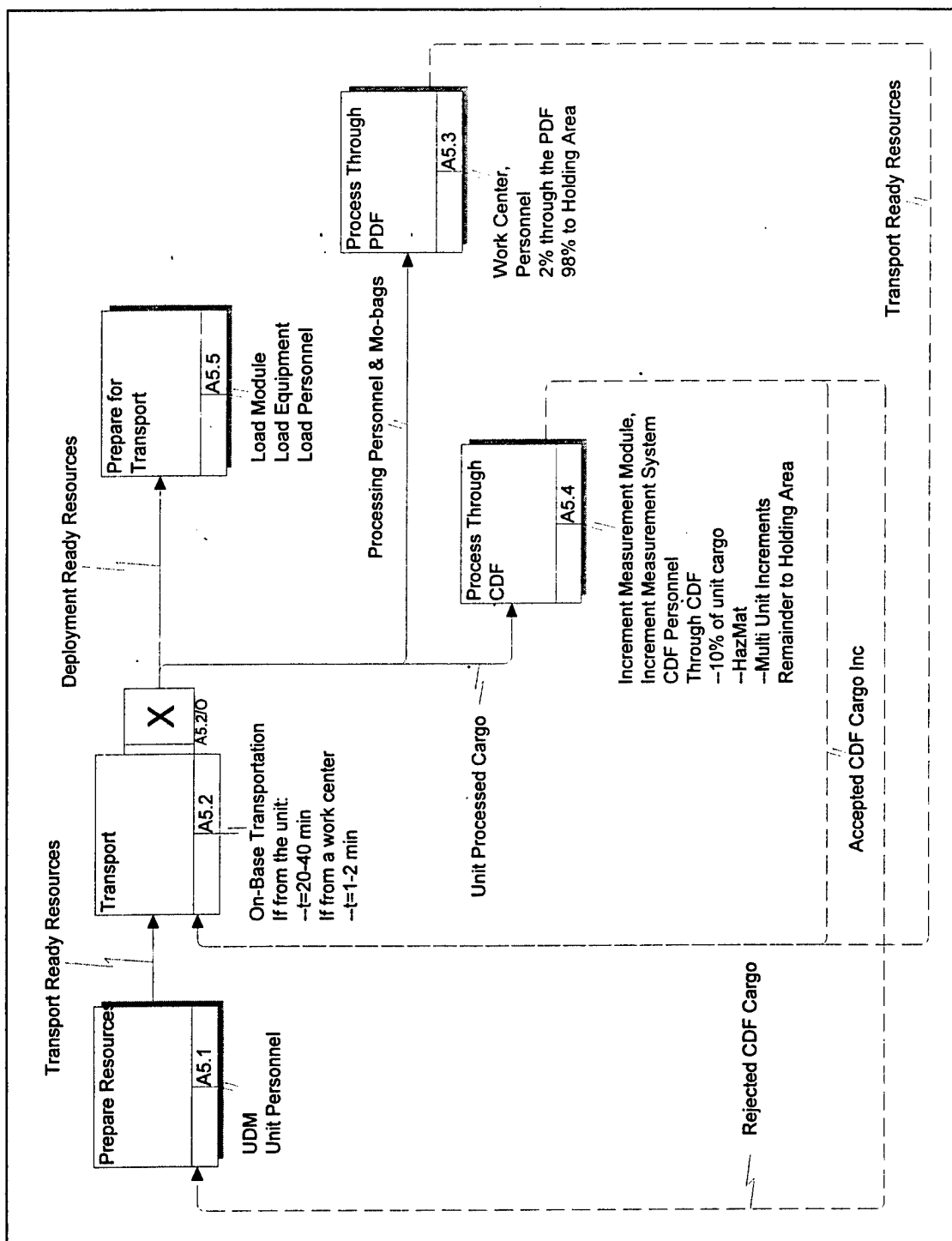
A31: Select Augmentee

Node Number	Process Name	Output/Product	Description	Time to Complete (in minutes)	Frequency of Occurrence	Exceptions/ Rules Variation Factors	Resource
A4.1	Estimate Transport Load	Transport Equipment Requirement	The amount and type of cargo and personnel requiring transporting, the time frame in which the transportation occurs, and the beginning and ending points for each transporting leg are computed.	min 0.01 mean 0.1 max 0.25			Transport Estimating Module
A4.2	Map Requirements to Availability	Projected Deficiency	Mapping the transporting requirements to the on-base transportation capabilities identifies the type of transportation capabilities required for deployment. Comparing the requirements with the available transport resources identifies any transporting deficiencies.	min 0.01 mean 0.1 max 0.25			Transport Schedule Module
		Proposed Conveyance Assignment Schedule	Comparing the transport capabilities requirements, the availability of on-base transportation, and the transporting time and paths produces a proposed assignment schedule for on-base conveyances				Transport Schedule Module
A4.3	Arrange Contract Support	Contracted Conveyances	The deficiencies are matched to available contracting resources, and one or more contracting potentials are identified.	min 10 mean 20 max 30			TMO
A4.4	Verify Local Transport Schedule	Approved On-Base Transport Schedule	The approved on-base schedule becomes available to support the deployment effort.	min 0.01 mean 0.1 max 0.25			Local Transport User Interface Module
		Schedule Adjustments	The user adjusts the transporting schedule, which is fed back to update the on-base transportation database.				Local Transport User Interface Module
A4.5	Coordinate Transport Requirement	Proposed Assignment	As the transportation requests arrive, the assignment of a conveyance is proposed.	min 0.01 mean 0.1 max 0.25			Transport Coordination Module
A4.6	Verify Local Transport Assignment	Assigned Transport	The proposed assignment is presented to the user who adjusts it as necessary and makes the necessary communication to initiate the availability of that conveyance.	min 5 mean 10 max 15			Local Transport Assignment User Interface Module, TMO



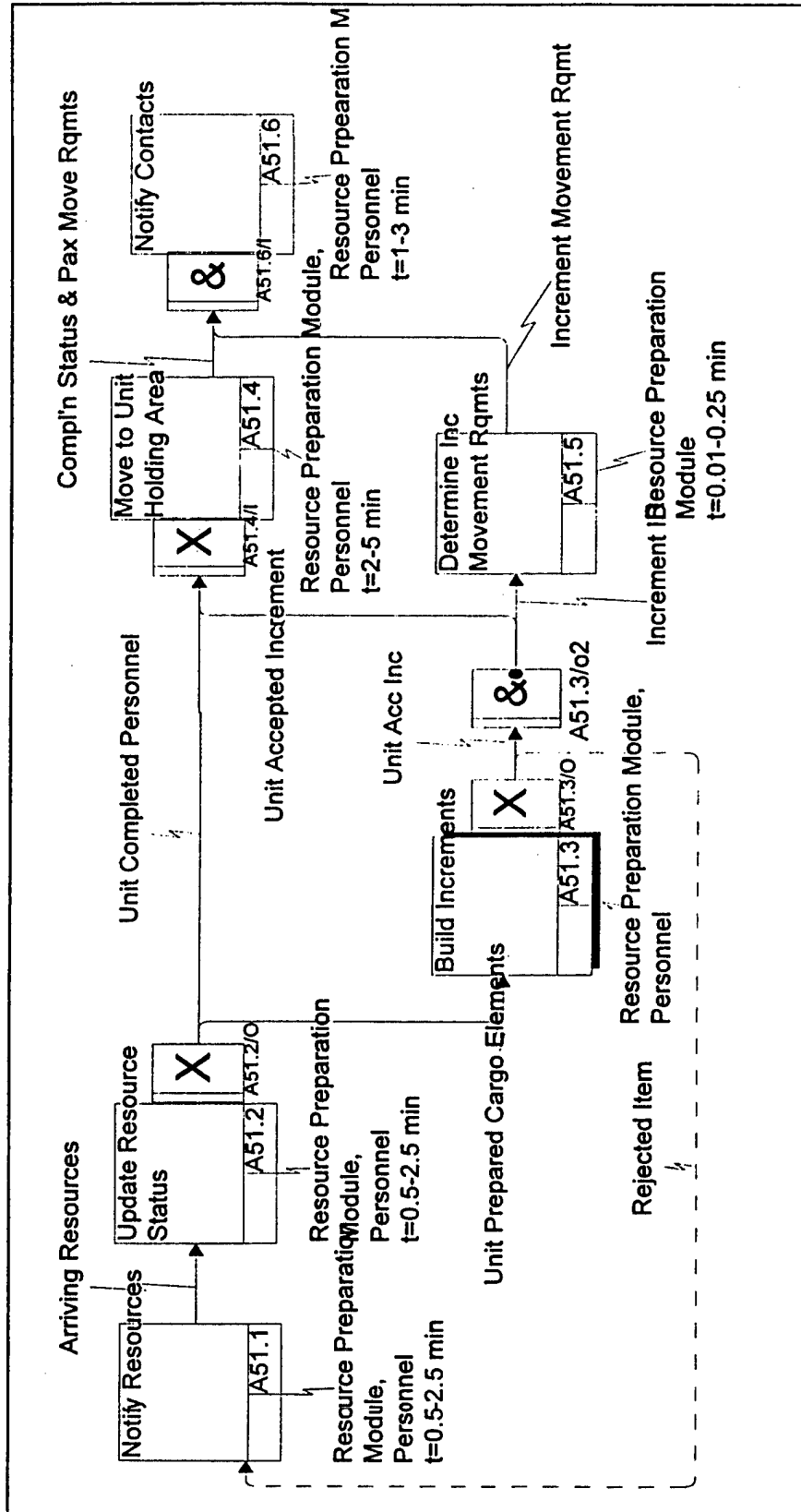
A4: Arrange for Transportation

Node Number	Process Name	Output/Product	Description	Time to Complete (in minutes)	Frequency of Occurrence	Exceptions/ Rules Variation Factors	Resource
A5.1	Prepare Resources	Transport Ready Resources	Both personnel and cargo are prepared at the unit and are ready to be transported to a chalk holding area or to the work centers.	See Decomposition			UDM, Unit Personnel
A5.2	Transport	Deployment Ready Resources	The resources are transported from the holding areas to the chalk.	min 1 mean 1.5 max 2			On-Base Transportation
		Unit Processed Cargo	The cargo is transported from the unit to the CDF or cargo holding area.	min 20 mean 25 max 40			On-Base Transportation
		Processing Personnel & Mobility Bags	The personnel are transported from the unit to the PDF or personnel holding area.	min 20 mean 25 max 40			On-Base Transportation
A5.3	Process Through PDF	Transport Ready Resources	The personnel are processed through the PDF and ready to be transported to the chalk.	See Decomposition	2% passengers		Work Center, Personnel
A5.4	Process Through CDF	Accepted CDF Cargo Increment	The cargo is processed and ready to be transported to the chalk.	See Decomposition	10% cargo		Increment Measurement Module, Increment Measurement System, CDF Personnel
		Rejected CDF Cargo Increment	The cargo is processed and ready to be transported back to the unit to be fixed or replaced.	See Decomposition			Increment Measurement Module, Increment Measurement System, CDF Personnel
A5.5	Prepare for Transport	Deployed Resources & Manifest	The cargo and personnel are loaded on the aircraft, the manifest is an accurate representation of the resources on the aircraft, and the aircraft is ready to depart the base.	See Decomposition			Load Module, Load Equipment, Load Personnel

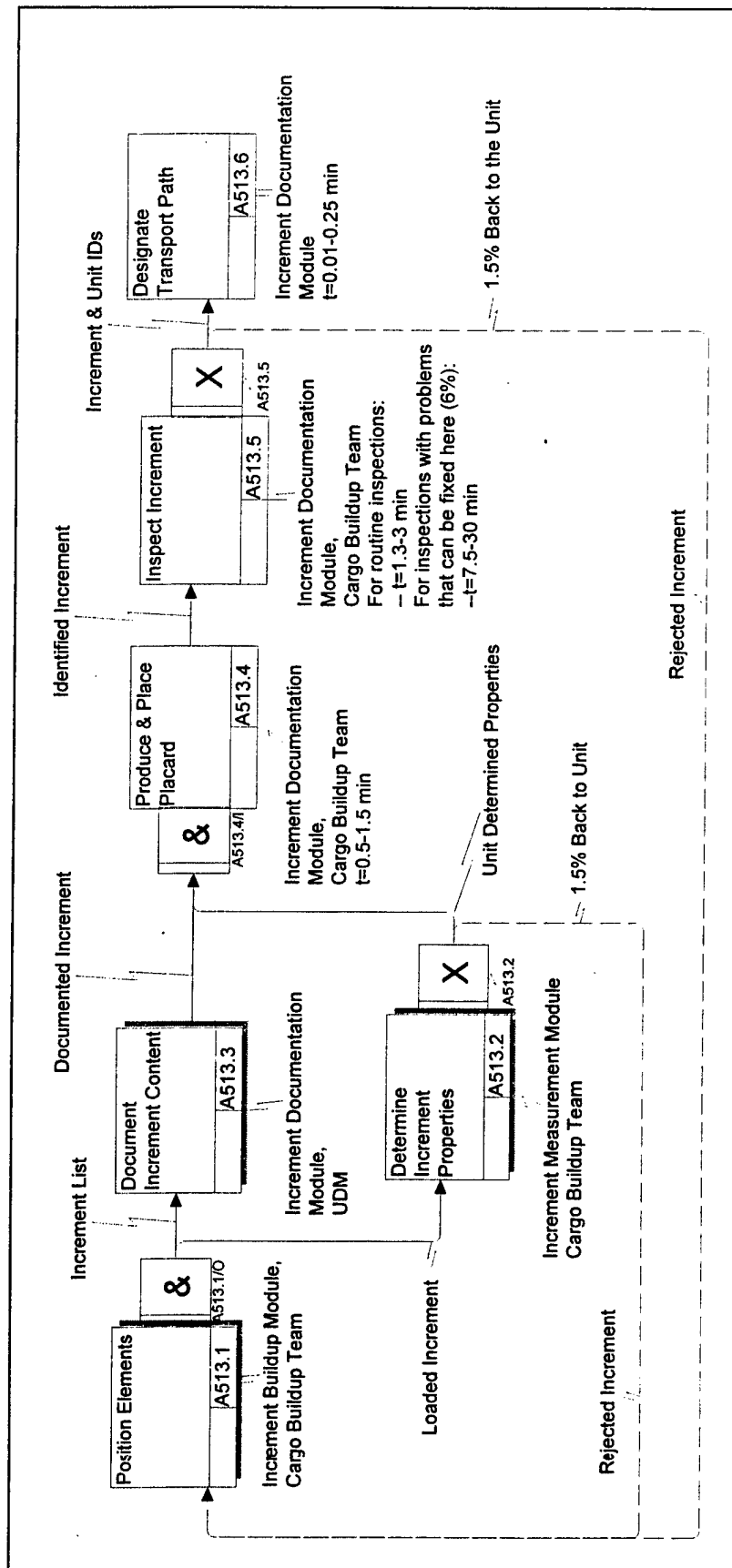


A5: Deploy Resources

Node Number	Process Name	Output/Product	Description	Time to Complete (in minutes)	Frequency of Occurrence	Exceptions/ Rules Variation Factors	Resource
A51.1	Notify Resources	Arriving Resources	Using the list of identified personnel and equipment, notifications are transmitted to the individuals to inform them when to report to their unit, and the equipment is made accessible.	min 0.5 mean 1.5 max 2.5			Resource Preparation Module Personnel
A51.2	Update Resource Status	Unit Prepared Cargo Elements	The necessary maintenance and packaging requirements are updated.	min 0.5 mean 1.5 max 2.5			Resource Preparation Module Personnel
		Unit Completed Personnel	The personnel's medical records are checked with respect to the deployment medical requirements. Many of the other records are updated as possible within the unit, and any processing requirements to be done during the actual deployment processing are identified.		2% need PDF processing		Resource Preparation Module Personnel
A51.3	Build Increments	Unit Accepted Increment	The unit aggregates the cargo elements into increments as specified through the load plan and increment layout. They perform a check to ensure the accuracy of the increment.	See Decomposition			Resource Preparation Module Personnel
		Rejected Item	The checking of the increment may identify specific equipment items that need replacement.				Resource Preparation Module Personnel
A51.4	Move to Unit Holding Area	Completion Status & Personnel Movement Requirements	The personnel and increments are moved to a holding area in preparation for further processing.	min 2 mean 3 max 5			Resource Preparation Module Personnel
A51.5	Determine Increment Movement Needs	Increment Movement Requirement	The on base movement requirements for the increment are determined, along with each location, time and specific equipment required for each movement.	min 0.01 mean 0.1 max 0.25			Resource Preparation Module Personnel
A51.6	Notify Contacts	Transport Request	A notification is sent to on-base transportation identifying the amount of resources ready for transport.	min 1 mean 2 max 3			Resource Preparation Module Personnel

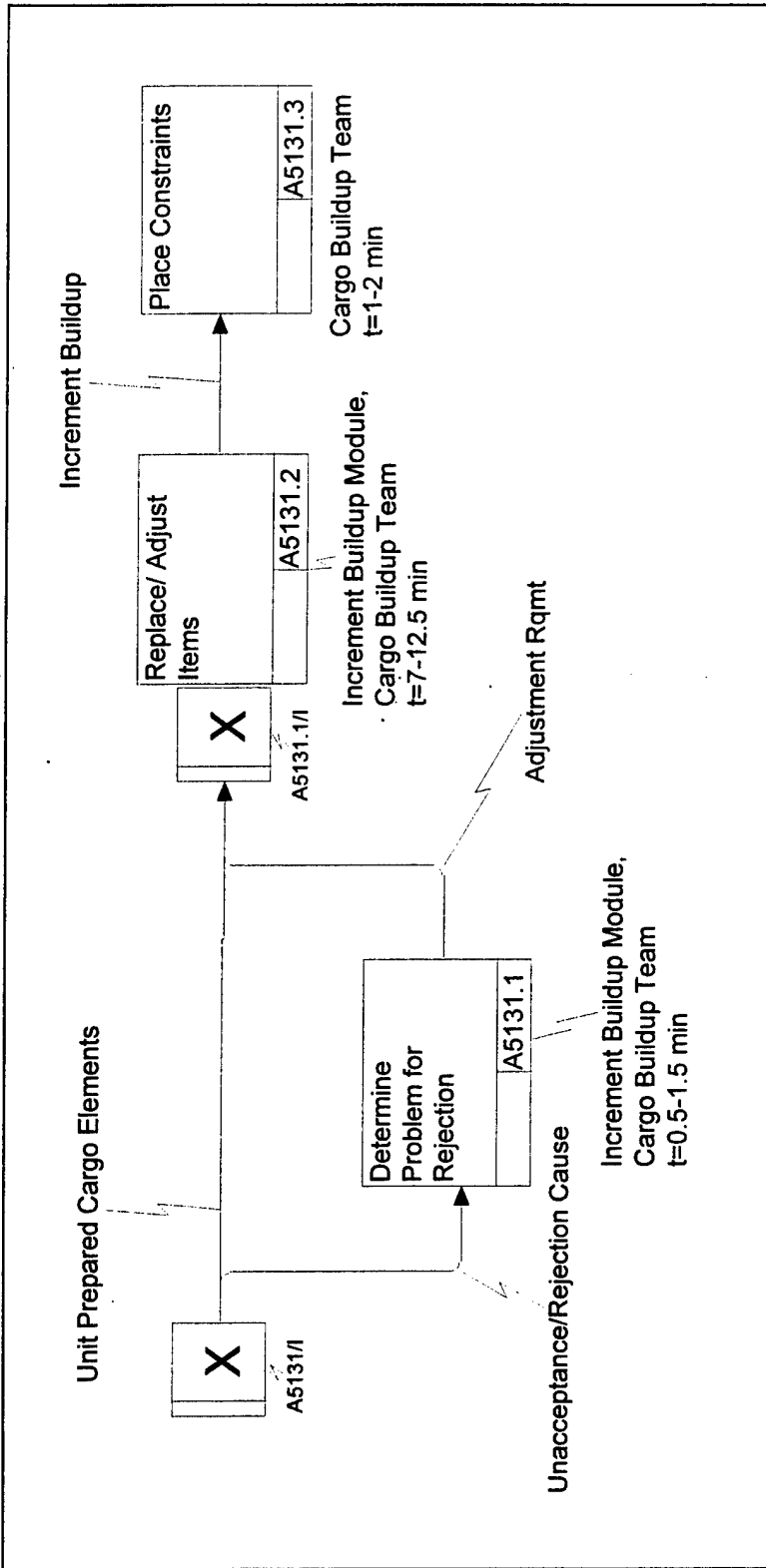


Node Number	Process Name	Output/Product	Description	Time to Complete (in minutes)	Frequency of Occurrence	Exceptions/ Rules Variation Factors	Resource
A513.1	Position Elements	Loaded Increment	The unit prepares the individual cargo items or elements. As they build the increment, they place the items onto a pallet or into a cargo box, as illustrated in the increment layout. As each item is loaded onto the pallet, it is verified against the list identified in the increment layout.	See Decomposition			Increment Buildup Module Cargo Buildup Team
A513.2	Determine Increment Properties	Increment List	It is determined whether or not the increment satisfies the limitations specified in the load plan.				Increment Buildup Module, Cargo Buildup Team
		Unit Determined Properties	If the increment does not satisfy the limitations specified, adjustments are performed to the increment packing to correct any problems.	See Decomposition			Increment Measurement Module, Cargo Buildup Team
		Rejected Increment			1.5%		Increment Measurement Module Cargo Buildup Team
A513.3	Document Increment Content	Documented Increment	As the increment build occurs, a listing of the contents provides a manifest for the increment.	See Decomposition			Increment Documentation Module, UDM
A513.4	Produce & Place Placard	Identified Increment	The computed properties are documented along with the increment manifest, both of which are attached to the increment for immediate reference.	min 0.5 mean 1 max 1.5			Increment Documentation Module, Cargo Buildup Team
A513.5	Inspect Increment	Increment & Unit IDs	A unit inspection ensures the increment meets all the necessary guidelines.	min 1.5 mean 2 max 3			Increment Documentation Module, Cargo Buildup Team
		Rejected Item	If the increment does not pass the inspection it must be torn down and rebuilt properly.	6% fixed here min 7.5 mean 9 max 30 1.5% sent back to unit min 1.5 mean 2 max 3	6% fixed here 1.5% sent back to unit		Increment Documentation Module, Cargo Buildup Team
A513.6	Designate Transport Path	Unit Accepted Increment	A reference made to the increment's subsequent inspection requirements determines the path taken by the increment from the unit to the transporting aircraft.	min 0.01 mean 0.1 max 0.25			Increment Documentation Module



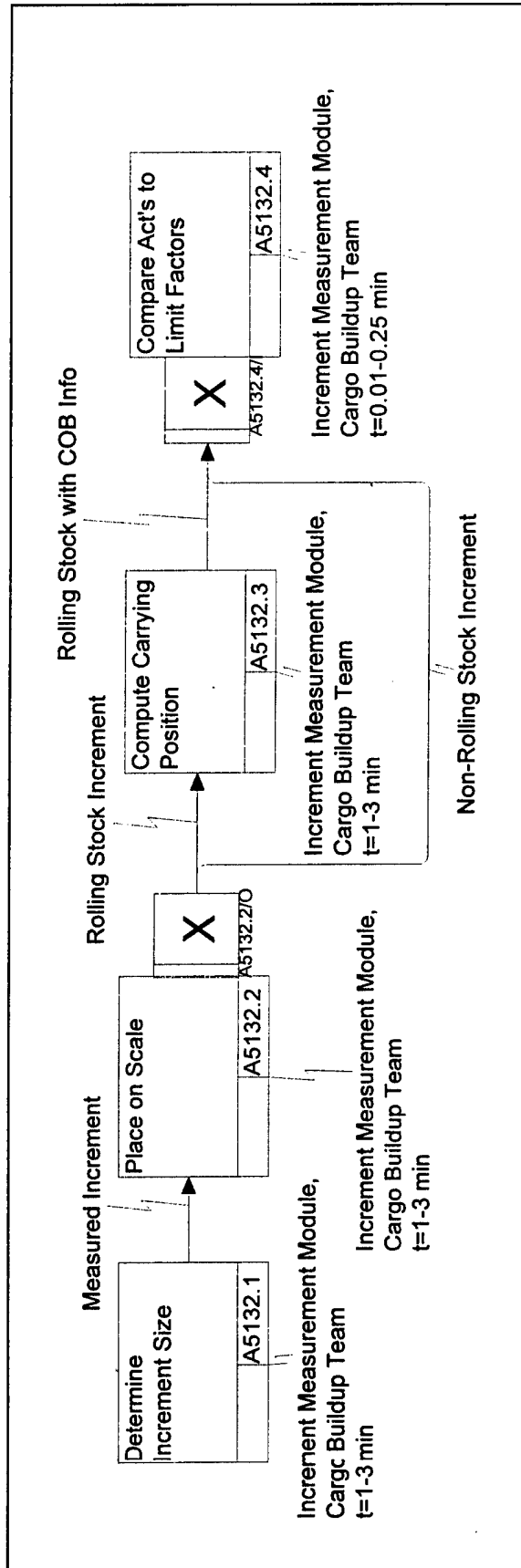
A513: Build Increments

<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A5131.1	Determine Problem For Rejection	Adjustment Requirement	When a problem occurs with an increment, and it is declared frustrated, corrective actions must be identified to repair the problem and get the increment back into the deployment process, so as to not impact the schedule.	min 0.5 mean 1 max 1.5			Increment Buildup Module, Cargo Buildup Team
A5131.2	Replace/ Adjust Items	Increment Buildup	The items within the increment are placed in accordance with the increment layout. If the increment was frustrated, the increment will be torn apart and rebuilt according to the adjusted requirement.	min 7 mean 10 max 12.5			Increment Buildup Module, Cargo Buildup Team
A5131.3	Place Constraints	Loaded Increment	The netting is placed around the increment.	min 1 mean 1.5 max 2			Cargo Buildup Team



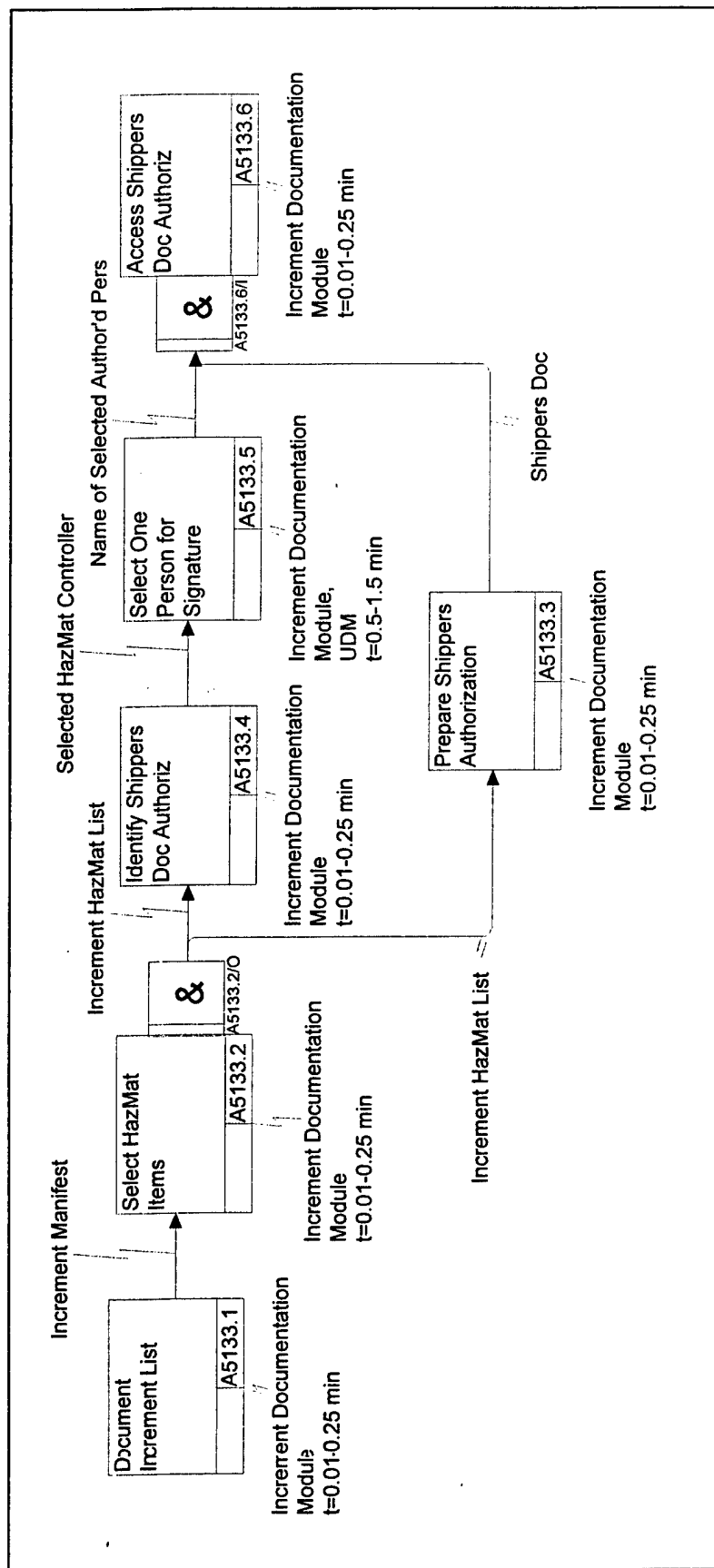
A5131: Position Elements

Node Number	Process Name	Output/Product	Description	Time to Complete (in minutes)	Frequency of Occurrence	Exceptions/ Rules Variation Factors	Resource
A5132.1	Determine Increment Size	Measured Increment	The unit identifies the measurements of the increment.	min 1 mean 2 max 3			Increment Measurement Module, Cargo Buildup Team
A5132.2	Place On Scale	Rolling Stock Increment	The unit weighs the increment and annotates if it is rolling stock for further computations.	min 1 mean 2 max 3	25%		Increment Measurement Module, Cargo Buildup Team
		Non-Rolling Stock Increment	The unit weighs the increment and annotates that it is not rolling stock.				Increment Measurement Module, Cargo Buildup Team
A5132.3	Compute Carrying Position	Rolling Stock with COB Information	The unit computes the center of balance for each increment that is rolling stock.	min 1 mean 2 max 3			Increment Measurement Module, Cargo Buildup Team
A5132.4	Compare Actuals To Limiting Factors	Unit Determined Properties	All the specifications of the increment are compared against the load plan to ensure they are within the limits defined in the load plan.	min 0.01 mean 0.1 max 0.25			Increment Measurement Module, Cargo Buildup Team
		Rejected Increment	If the specifications of the increment are not within the limits defined in the load plan, the increment is considered frustrated and will have to be rebuilt.		1.5%		Increment Measurement Module, Cargo Buildup Team



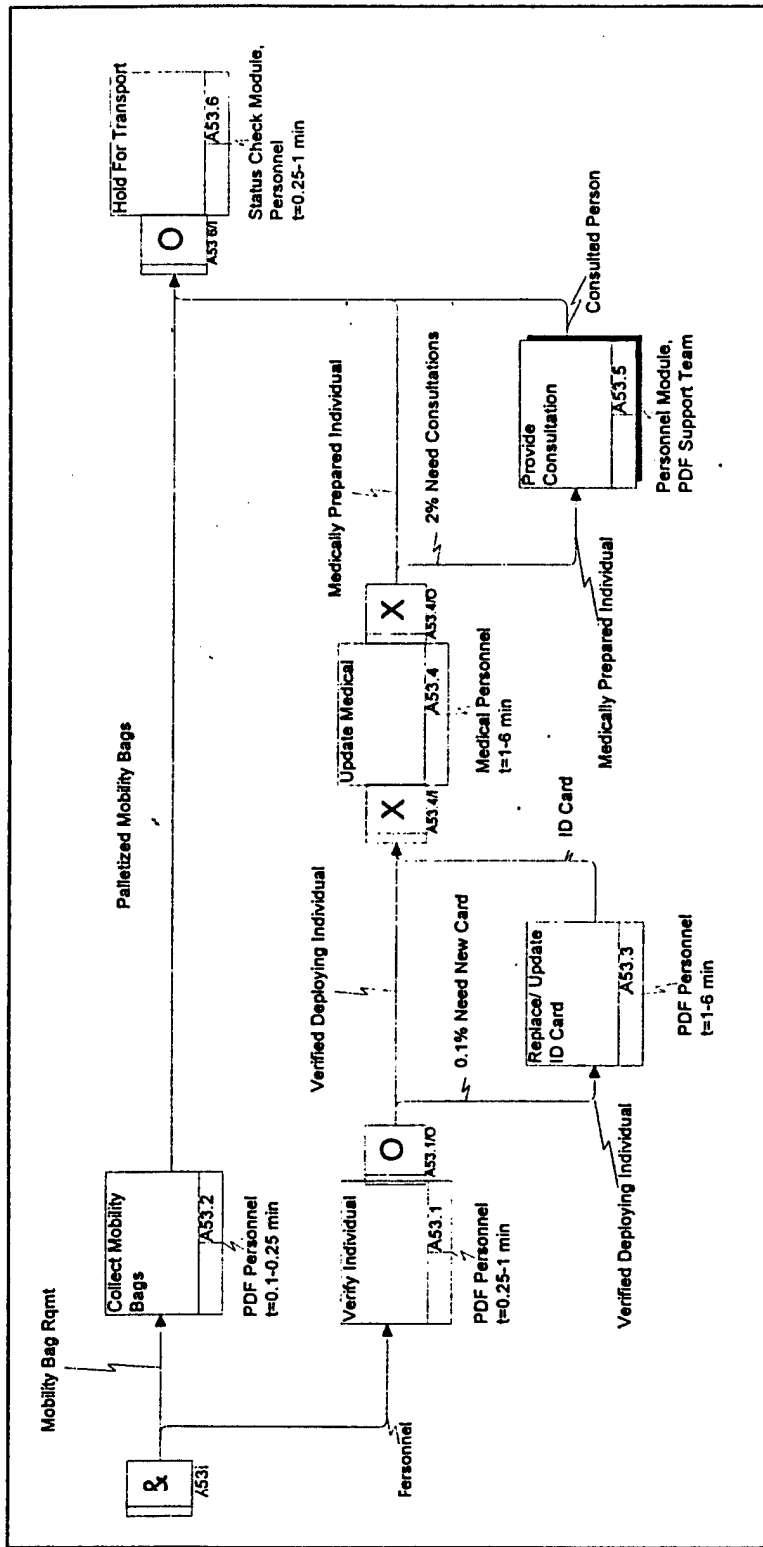
A5132: Determine Increment Properties

<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A5133.1	Document Increment List	Increment Manifest	The list of all items on the increment is generated.	min 0.01 mean 0.1 max 0.25			Increment Documentation Module
A5133.2	Select HazMat Items	Increment HazMat List	A master list of hazardous materials is used to identify materials on the increment that are considered hazardous.	min 0.01 mean 0.1 max 0.25			Increment Documentation Module
A5133.3	Prepare Shippers Authorization	Shippers Declaration	For each hazardous material a shipper's declaration is generated.	min 0.01 mean 0.1 max 0.25			Increment Documentation Module
A5133.4	Identify Shippers Dec Authorization	Selected HazMat Controller	A list of authorized individuals within the unit to sign the shipper declaration is generated.	min 0.01 mean 0.1 max 0.25			Increment Documentation Module
A5133.5	Select One Person For Signature	Name of Selected Authorization Person	Of the list of authorized individuals, the UDM selects a person easily accessible for their signature.	min 0.5 mean 1 max 1.5			Increment Documentation Module, UDM
A5133.6	Access Shippers Dec Authorization	Signed Shippers Dec	A notification is transmitted to the selected individual to facilitate their signing of the document(s).	min 0.01 mean 0.1 max 0.25			Increment Documentation Module



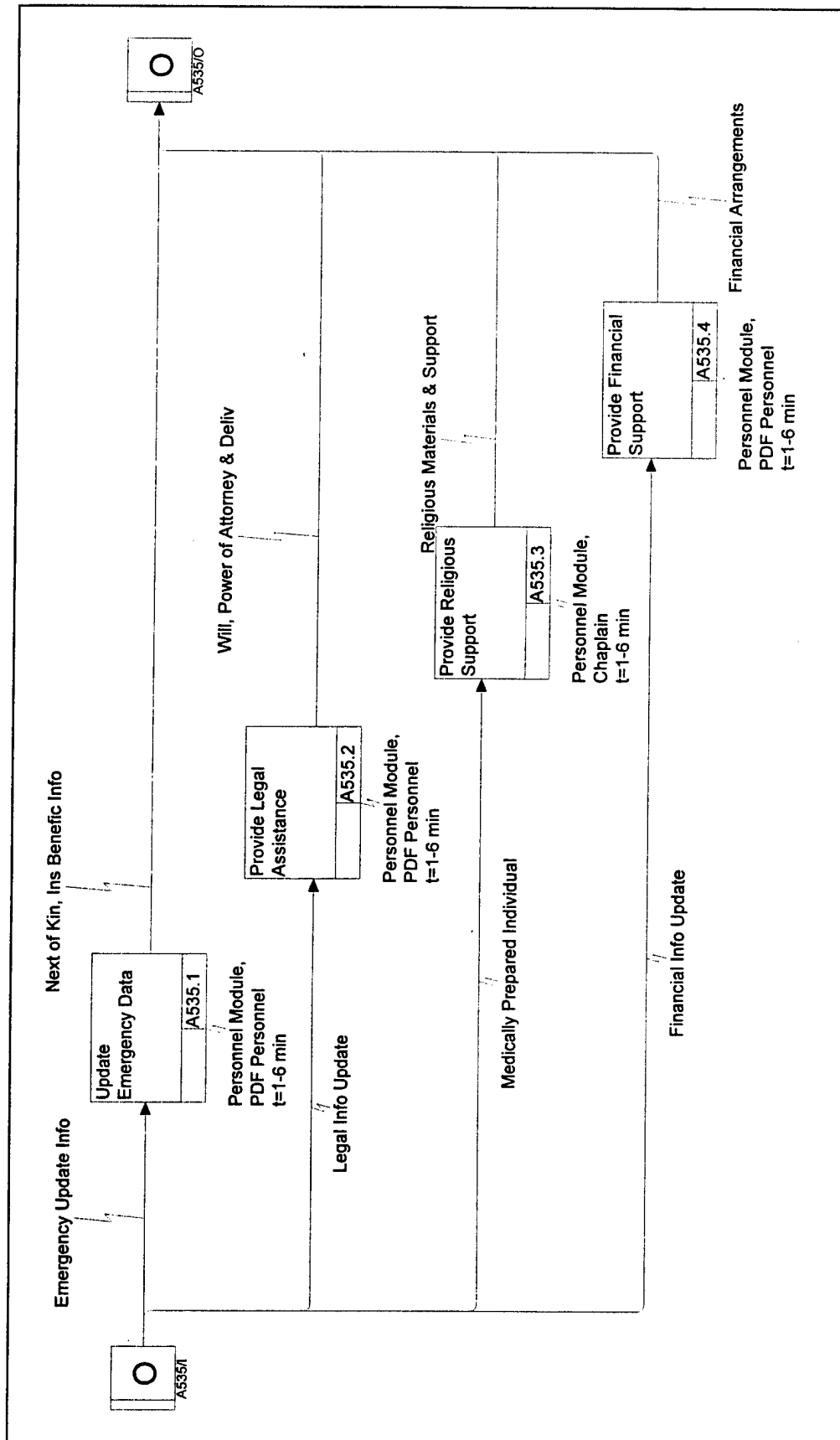
A5133: Document Increment Content

<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A53.1	Verify Individual	Verified Deploying Individual	Each person is verified for their place on the chalk by reviewing the personnel manifest.	min 0.25 mean 0.5 max 1			PDF Personnel
A53.2	Collect Mobility Bags	Palletized Mobility Bags	As the personnel enter the PDF, they drop their mobility bags on a pallet for transportation.	Min 0.1 mean 0.15 max 0.25			PDF Personnel
A53.3	Replice/ Update Id Card	ID Card	If the person requires a new ID card, they will process through this workstation.	min 1 mean 2 max 6	0.1%		PDF Personnel
A53.4	Update Medical	Medically Prepared Individual	If the person requires any shots, they will process through the medical workstation. The records will automatically be updated.	min 1 mean 2 max 6			Medical Personnel
A53.5	Provide Consultation	Consulted Person	If the person requires any special consultation, they will process through the appropriate workstation.	See Decomposition	2%		Personnel Module, PDF Support Team
A53.6	Hold For Transport	Transport Ready Resources	The personnel are placed in a holding area awaiting transport to the aircraft.	min 0.25 mean 0.5 max 1			Status Check Module Personnel



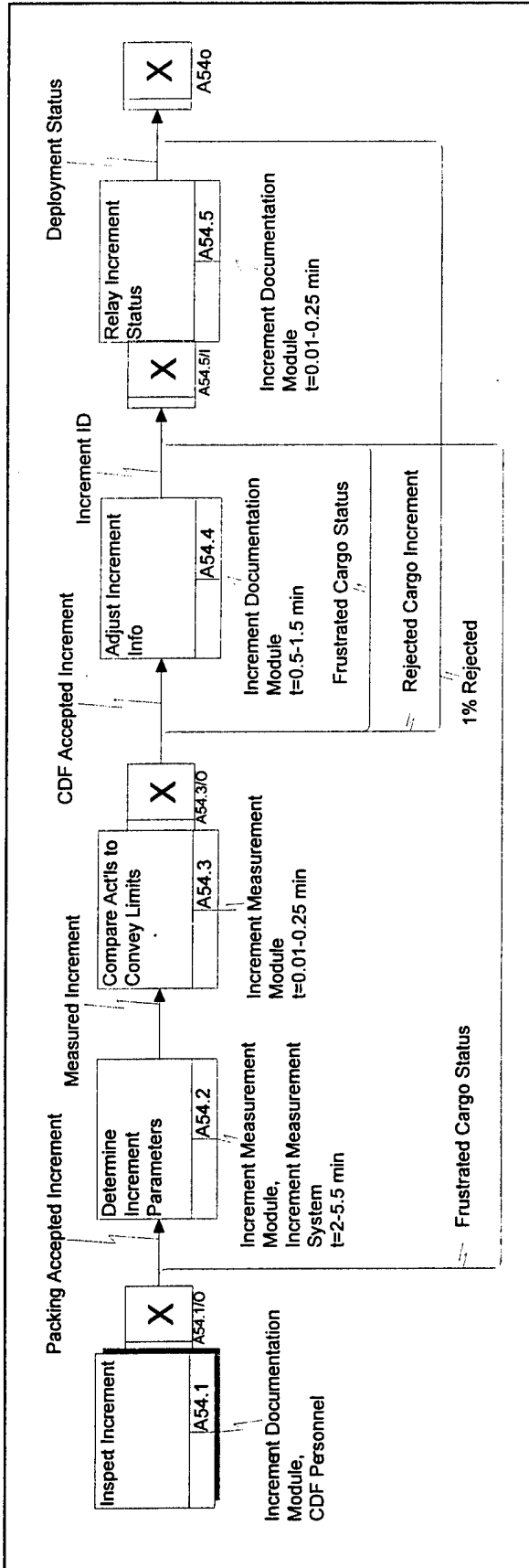
A53: Process Through PDF

<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A535.1	Update Emergency Data	Next of Kin Insurance Beneficiary Information & Delivery Information	If the person requires any updates to their emergency information, they will process through this workstation and provide the appropriate updates.	min 1 mean 2 max 6			Personnel Module, PDF Personnel
A535.2	Provide Legal Assistance	Will, Power of Attorney & Delivery Directions	If the person requires any legal assistance, they will process through this workstation and provide the appropriate updates.	min 1 mean 2 max 6			Personnel Module, PDF Personnel
A535.3	Provide Religious Support	Religious Materials & Support	If the person requires consultation with a chaplain, they will stop at this workstation and have the necessary discussions and possibly receive some religious information for future use.	min 1 mean 2 max 6			Personnel Module, Chaplain
A535.4	Provide Financial Support	Financial Arrangements	If the person requires any financial support, they will stop at this station and make the necessary arrangements.	min 1 mean 2 max 6			Personnel Module, PDF Personnel



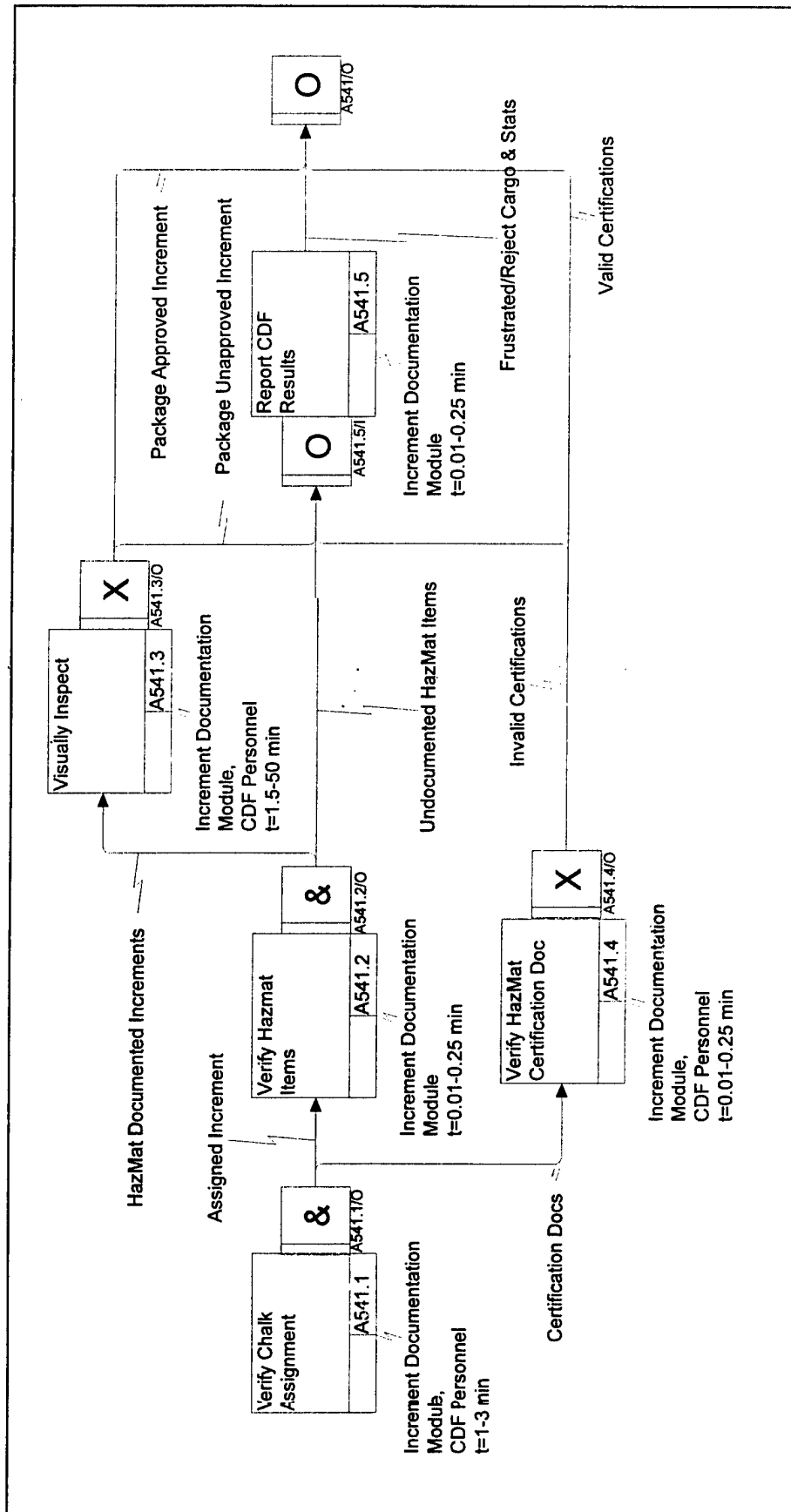
A535: Provide Consultation

Node Number	Process Name	Output/Product	Description	Time to Complete (in minutes)	Frequency of Occurrence	Exceptions/ Rules Variation Factors	Resource
A54.1	Inspect Increment	Packing Accepted Increment	An inspection of the increment is performed at the CDF to ensure the increment meets all flight safety requirements.				Increment Documentation Module, CDF Personnel
		Frustrated Cargo Status	If the inspection of the increment reveals the increment does not pass, the information is relayed to the appropriate organizations, and the cargo is considered frustrated.				Increment Documentation Module, CDF Personnel
A54.2	Determine Increment Parameters	Measured Increment	The increment is processed through a very accurate measuring device.	min 2 mean 4 max 5.5			Increment Measurement Module, Increment Measurement System
A54.3	Compare Actuals To Conveyance Limitations	Accepted Increment ID	A review of the increment measurements is compared to the load plan to ensure the increment fits correctly into the designated airlift.	min 0.01 mean 0.1 max 0.25			Increment Measurement Module
		CDF Rejected Cargo Increment	If the increment is determined to not fit correctly on the airlift, the increment is rejected.		1%		Increment Measurement Module
		Frustrated Cargo status	The status of the frustration of the increment is relayed to the appropriate organizations.				Increment Measurement Module
A54.4	Adjust Increment Information	Transport Ready Increment	When the increment fits correctly on the airlift, adjustments are made to the placard and the increment is ready for transport.	min 0.5 mean 1 max 1.5			Increment Documentation Module
A54.5	Relay Increment Status	Deployment Status	The status of the CDF processing is available to those needing the information.	min 0.01 mean 0.1 max 0.25			Increment Documentation Module



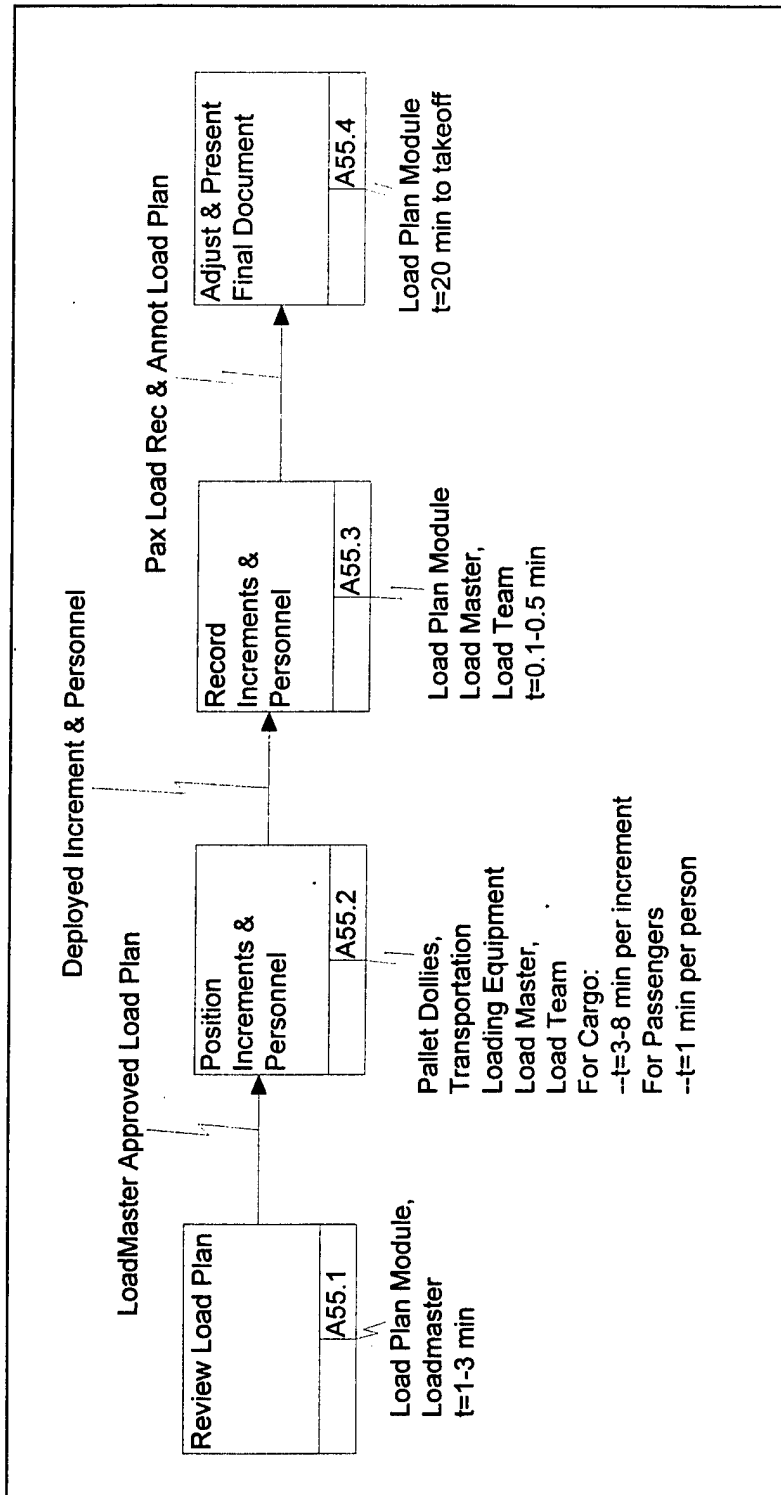
A54: Process Through the CDF

Node Number	Process Name	Output/Product	Description	Time to Complete (in minutes)	Frequency of Occurrence	Exceptions/ Rules Variation Factors	Resource
A541.1	Verify Chalk Assignment	Certification Documents	The HazMat documents accompanying the increment are reviewed.	min 1 mean 2 max 3			Increment Documentation Module, CDF Personnel
		Assigned Increment	As the increment arrives at the CDF, the increment number is validated against the load plan ensuring the increment is designated to the correct chalk.				Increment Documentation Module, CDF Personnel
A541.2	Verify HazMat Items	HazMat Documented Increment	Using the HazMat certification documents accompanying the increment, a comparison between the certification and the HazMat items confirms that each HazMat item is documented.	min 001 mean 0.1 max 0.25			Increment Documentation Module
		Undocumented HazMat Items	If an item on the increment is determined to be HazMat and no appropriate documentation accompanies the increment, the increment is considered frustrated.		%		Increment Documentation Module
A541.3	Visually Inspect	Package Approved Increment	An inspection of the increment is performed to correlate between the pallet layout and the increment layout to ensure correct positioning of the items, especially the HazMat items. If a minor problem is discovered, it is corrected here at the CDF.	min 1.5 mean 6 max 50			Increment Documentation Module, CDF Personnel
		Package Unapproved Increment	If the packing of the total increment is considered unacceptable, the increment is considered frustrated.		%		Increment Documentation Module, CDF Personnel
A541.4	Verify HazMat Certification Docs	Valid Certifications	The HazMat certification documents are reviewed for appropriate content and authorized signatures.	min 0.01 mean 0.1 max 0.25			Increment Documentation Module, CDF Personnel
		Invalid Certifications	If the HazMat certification is wrong or missing, the cargo is considered frustrated.		%		Increment Documentation Module, CDF Personnel
A541.5	Report CDF Results	CDF Rejected Cargo Increment & Accepted Increment ID	The status of all the information about the cargo is available to those who need the information.	min 0.01 mean 0.1 max 0.25			Increment Documentation Module



A541: Inspect Increment

<i>Node Number</i>	<i>Process Name</i>	<i>Output/Product</i>	<i>Description</i>	<i>Time to Complete (in minutes)</i>	<i>Frequency of Occurrence</i>	<i>Exceptions/ Rules Variation Factors</i>	<i>Resource</i>
A55.1	Review Load Plan	Load Master Approved Load Plan	The Load Master reviews the load plan with respect to the loading standards for the aircraft to ensure the safety of the chalk. The Load Master and the base load planner coordinate on adjustments to the load plan.	min 1 mean 2 max 3			Load Plan Module, Load Master
A55.2	Position Increments & Personnel	Deployed Increment & Personnel	The cargo and personnel are loaded on the aircraft in accordance with the load plan.	Increments: min 3 mean 5 max 8 Passengers: 1 minutes			Pallet Dolly, Transportation Loading Equipment, Load Master Load Team
A55.3	Record Increments & Personnel	PAX Loading Record & Annotated Load Plan	As positioning of each increment and individual occurs, an annotation to the load plan indicates their presence.	min 0.1 mean 0.2 max 0.5			Load Plan Module, Load Master, Load Team
A55.4	Adjust & Present Final Documents	Manifest	At loading completion, the finalizing, review and approval of the load plan by the Load Master produces the load manifest for the aircraft. The aircraft is ready for take-off.	20 minutes to takeoff			Load Plan Module



A55: Prepare for Transport